

ENGLISH CORE
Subject Code-301
Classes-XI- XII (2025-26)

Background

Students are expected to have acquired a reasonable degree of language proficiency in English Language by the time they come to class XI, and the course aims, essentially, at promoting the higher-order language skills.

For a large number of students, the higher secondary stage will be a preparation for the university, where a fairly high degree of proficiency in English may be required. Additionally, for another large group, the higher secondary stage may be a preparation for entry into the professional domain. The Core Course caters to both groups by promoting the language skills required for academic study as well as the language skills required for the workplace.

Competencies to be focused on:

The general objectives at this stage are to:

- listen and comprehend live as well as recorded oral presentations on a variety of topics
- develop greater confidence and proficiency in the use of language skills necessary for social and academic purpose to participate in group discussions and interviews, by making short oral presentation on given topics
- perceive the overall meaning and organisation of the text (i.e., correlation of the vital portions of the text)
- identify the central/main point and supporting details, etc., to build communicative competence in various lexicons of English
- promote advanced language skills with an aim to develop the skills of reasoning, drawing inferences, etc. through meaningful activities
- translate texts from mother tongue(s) into English and vice versa
- develop ability and acquire knowledge required in order to engage in independent reflection and enquiry
- read and comprehend extended texts (prescribed and non-prescribed) in the following genres: science fiction, drama, poetry, biography, autobiography, travel and sports literature, etc.
- text-based writing (i.e., writing in response to questions or tasks based on prescribed or unseen texts), understand and respond to lectures, speeches, etc.
- write expository / argumentative essays, explaining or developing a topic, arguing a case, etc, write formal/informal letters and applications for different purposes

- make use of contextual clues to infer meanings of unfamiliar vocabulary
- select, compile and collate information for an oral presentation
- produce unified paragraphs with adequate details and support
- use grammatical structures accurately and appropriately
- write items related to the workplace (minutes, memoranda, notices, summaries, reports etc.
- filling up of forms, preparing CV, e-mail messages., making notes from reference materials, recorded talks etc.

The core course should draw upon the language items suggested for class IX-X and delve deeper into their usage and functions. Particular attention may, however, be given to the following areas of grammar:

- The use of passive forms in scientific and innovative writings.
- Convert one kind of sentence/clause into a different kind of structure as well as other items to exemplify stylistic variations in different discourses modal auxiliaries- uses based on semantic considerations.

A. Specific Objectives of Reading

Students are expected to develop the following study skills:

- skim for main ideas and scan for details
- refer to dictionaries, encyclopedia, thesaurus and academic reference material in any format
- select and extract relevant information, using reading skills of skimming and scanning
- understand the writer's purpose and tone
- comprehend the difference between the literal and the figurative
- differentiate between claims and realities, facts and opinions, form business opinions on the basis of latest trends available
- comprehend technical language as required in computer related fields, arrive at personal conclusion and logically comment on a given text.
- Specifically develop the ability to be original and creative in interpreting opinion, develop the ability to be logically persuasive in defending one's opinion and making notes based on a text.
- recognize multilingual nature of Indian society by reading different genres.

Develop literary skills as enumerated below:

- respond to literary texts
- appreciate and analyse special features of languages that differentiate literary texts from non-literary ones, explore and evaluate features of character, plot, setting, etc.
- understand and appreciate the oral, mobile and visual elements of drama. Identify the elements of style such as humour, pathos, satire and irony, etc.
- make notes from various resources for the purpose of developing the extracted ideas into sustained pieces of writing

B. Listening and Speaking

Speaking needs a very strong emphasis and is an important objective leading to professional competence. Hence, testing of oral skills must be made an important component of the overall testing pattern. To this end, speaking and listening skills are overtly built into the material to guide the teachers in actualization of the skills.

Specific Objectives of Listening & Speaking

Students are expected to develop the ability to:

- take organized notes on lectures, talks and listening passages
- listen to news bulletins and to develop the ability to discuss informally a wide ranging issues like current national and international affairs, sports, business, etc.
- respond in interviews and to participate in formal group discussions.
- make enquiries meaningfully and adequately and to respond to enquiries for the purpose of travelling within the country and abroad.
- listen to business news and to be able to extract relevant important information.
- to develop public speaking skills.

C. Specific Objectives of Writing

The students will be able to:

- write letters to friends, relatives, etc. to write business and official letters.
- open accounts in post offices and banks. To fill in railway/airline reservation forms both online and offline.
- draft notices, advertisements and design posters effectively and appropriately
- write on various issues to institutions seeking relevant information, lodge complaints, express gratitude or render apology.
- write applications, fill in application forms, prepare a personal bio-data for admission into colleges, universities, entrance tests and jobs.
- write informal reports as part of personal letters on functions, programmes and activities held in school (morning assembly, annual day, sports day, etc.)
- write formal reports for school magazines/events/processes/ or in local newspapers about events or occasions.
- express opinions, facts, arguments in the form of speech or debates, using a variety of accurate sentence structures
- draft papers to be presented in symposia.
- take down notes from talks and lectures.
- write examination answers according to the requirement of various subjects.
- summarise a text.

Note: The creative writing section shall assess the prescribed competencies for writing skills, irrespective of any word limit.

D. More About Reading

Inculcating good reading habits in children has always been a concern for all stakeholders in education. The purpose is to create independent thinking individuals with the ability to not only create their own knowledge but also critically interpret, analyse and evaluate it with objectivity and fairness. This will also help students in learning and acquiring better language skills.

Creating learners for the 21st century involves making them independent learners who can learn, unlearn and relearn. If our children are in the habit of reading, they will learn to reinvent themselves and deal with the many challenges that lie ahead of them.

Reading is not merely decoding information or pronouncing words correctly. It is an interactive dialogue between the author and the reader in which the reader and the author share their experiences and knowledge with each other. Good readers are critical readers with an ability to arrive at a deeper understanding of not only the world presented in the book but also of the real world around them.

Consequently, they become independent thinkers capable of taking their own decisions in life rationally. Hence, a few activities are suggested below which teachers may use as a part of the reading project.

- Short review / dramatization of the story
- Commentary on the characters
- Critical evaluation of the plot, storyline and characters
- Comparing and contrasting the characters within the story, with other characters in stories by the same author or by different authors
- Extrapolating about the story read or life of characters after the story ends defending characters' actions in the story
- Making an audio story out of the novel/text to be read aloud.
- Interacting with the author
- Holding a literature fest where students role-play as various characters to interact with each other
- Role playing as authors/poets/dramatists, to defend their works and characters
- Symposiums and seminars for introducing a book, an author, or a theme
- Creating graphic novels out of novel or short stories they read
- Dramatizing incidents from a novel or a story
- Creating their own stories
- Books of one genre to be read by the whole class.

Teachers may select books and e-books suitable to the age and level of the learners. Care ought to be taken to choose books that are appropriate in terms of language, theme and content and which do not hurt the sensibilities of a child.

Teachers may later suggest books from other languages by dealing with the same themes as an extended activity. The Project should lead to independent learning/reading skills and hence the chosen book should not be taught in class, but may be introduced through activities and be left for the students to read at their own pace. Teachers may, however, choose to assess a student's progress or success in reading the book by asking for verbal or written progress reports, looking at their diary entries, engaging in a discussion about the book, giving a short quiz or a work sheet about the book/short story. A befitting mode of assessment may be chosen by the teacher.

Methods and Techniques

The techniques used for teaching should promote habits of self-learning and reduce dependence on the teacher. In general, we recommend a multi-skill, learner-centred, activity based approach, of which there can be many variations.

- The core classroom activity is likely to be that of silent reading of prescribed/selected texts for comprehension, which can lead to other forms of language learning activities such as role-play, dramatization, group discussion, writing, etc., although many such activities could be carried out without the preliminary use of textual material.
- It is important that students be trained to read independently and intelligently, interacting actively with texts, with the use of reference materials (dictionary, thesaurus, etc.) where necessary.
- Some pre-reading activity will generally be required, and the course books should suggest suitable activities, leaving teachers free to devise other activities when desired. So also, the reading of texts should be followed by post reading activities.
- It is important to remember that students should be encouraged to interpret texts in different ways.
- Group and pair activities can be resorted to, when desired, although many useful language activities can be carried out individually. In general, teachers should encourage students to interact actively with texts and with each other.
- Oral activity (group discussion, etc.) should be encouraged.

ENGLISH CORE
CLASS –XI (2025-26)

Section A
Reading Skills-- 26 Marks

I. Reading Comprehension through Unseen Passages **10+8=18 Marks**

1. One unseen passage to assess comprehension, interpretation, analysis, inference and vocabulary. The passage may be factual, descriptive or literary.
2. One unseen case-based factual passage with verbal/visual inputs like statistical data, charts etc.to assess comprehension, interpretation, analysis, inference and evaluation.

Note: *The combined word limit for both the passages will be 600-750.* Multiple Choice Questions / Objective Type Questions will be asked.

3. Note Making and Summarization based on a passage of approximately 200-250 words.

- | | | |
|-----|----------------------------|---------|
| i. | Note Making: | 5 Marks |
| | • Title: | 1 |
| | • Numbering and indenting: | 1 |
| | • Key/glossary: | 1 |
| | • Notes: | 2 |
| ii. | Summary (up to 50 words): | 3 Marks |
| | • Content: | 2 |
| | • Expression: | 1 |

Section B
Grammar and Creative Writing Skills– 23 Marks

II. Grammar **7 Marks**

4. Questions on Gap filling (Tenses, Clauses)
5. Questions on re-ordering/transformation of sentences

(Total seven questions to be done out of the eight given).

III. Creative Writing Skills **16 Marks**

6. Short writing task – Classified Advertisements, up to 50 words. One out of the two given questions to be answered (3 Marks: Format: 1 / Content: 1 / Expression: 1)

7. Short writing task –Poster up to 50 words. One out of the two given questions to be answered. (3 marks: Format: 1 / Content: 1 / Expression: 1)
8. Long Writing task: Speech in 120-150 words based on verbal / visual cues related to contemporary / age-appropriate topic. One out of the two given questions to be answered. (5 Marks: Format: 1 / Content: 2 / Expression: 2)
9. Long Writing Task: Debate based on visual/verbal inputs in 120-150 words, thematically related to contemporary, topical issues. One out of the two given questions to be answered. (5 Marks: Format: 1 / Content: 2 / Expression: 2)

Section C

Literature Text Book and Supplementary Reading Text-31 Marks

This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, interpretation, analysis, evaluation and extrapolation beyond the text.

10. One Poetry extract out of two, from the book Hornbill, to assess comprehension, interpretation, analysis, inference and appreciation. **3x1=3 Marks**
11. One Prose extract out of two, from the book Hornbill, to assess comprehension, interpretation, analysis, evaluation and appreciation. **3x1=3 Marks**
12. One prose extract out of two, from the book Snapshots, to assess comprehension, interpretation, analysis, inference and appreciation. **4x1=4 Marks**
13. Two Short answer type questions (one from Prose and one from Poetry, from the book Hornbill), out of four, to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking. **3x2=6 Marks**
14. One Short answer type question, from the book Snapshots, to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. One out of two questions to be done. **3x1=3 Marks**
15. One Long answer type question, from Prose/Poetry of Hornbill, to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event, as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from the student. Any one out of two questions to be done. **1x6=6 Marks**
16. One Long answer type question, based on the chapters from the book Snapshots, to be answered in 120-150 words, to assess global comprehension and extrapolation beyond the text. Questions to provide analytical and evaluative responses, using incidents, events, themes, as reference points. Any one out of two questions to be done. **1x6=6 Marks**

Prescribed Books

1. **Hornbill:** English Reader published by National Council of Education Research and Training, New Delhi

- The Portrait of a Lady (Prose)
- A Photograph (Poem)
- “We’re Not Afraid to Die... if We Can Be Together
- Discovering Tut: The Saga Continues
- The Laburnum Top (Poem)
- The Voice of the Rain (Poem)
- Childhood (Poem)
- The Adventure
- Silk Road (Prose)
- Father to Son

2. **Snapshots:** Supplementary Reader published by National Council of Education Research and Training, New Delhi

- The Summer of the Beautiful White Horse (Prose)
- The Address (Prose)
- Mother’s Day (Play)
- Birth (Prose)
- The Tale of Melon City

INTERNAL ASSESSMENT

Assessment of Listening Skills	- 05 marks.
Assessment of Speaking Skills	- 05 Marks
Project Work	- 10 Marks

ENGLISH CORE
QUESTION PAPER DESIGN
CLASS-XI (2025-26)

Section	Competencies	Total marks
Reading Skills	Conceptual understanding, decoding, Analyzing, inferring, interpreting, appreciating, literary, conventions and vocabulary, summarizing and using appropriate format/s.	26
Grammar and Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriate style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity.	23
Literature Text Book and Supplementary Reading Text	Recalling, reasoning, appreciating literary convention, inference, analysis, creativity with fluency, Critical Thinking.	31
	TOTAL	80
Internal Assessment	Assessment of Listening and Speaking Skills	10
	<ul style="list-style-type: none"> • Listening • Speaking 	5+5
	<ul style="list-style-type: none"> • Project Work 	10
	GRAND TOTAL	100

ENGLISH CORE
CLASS – XII (2025-26)

Section A
Reading Skills-22 Marks

I. Reading Comprehension through Unseen Passage

12+10 = 22 Marks

1. One unseen passage to assess comprehension, interpretation, analysis and inference. Vocabulary assessment will also be assessed via inference. The passage may be factual, descriptive or literary.
2. One unseen **case-based factual** passage with verbal/visual inputs like statistical data, charts etc. to assess comprehension, interpretation, analysis, inference and evaluation.

Note: The combined word limit for both the passages will be 700-750 words.

Multiple Choice Questions / Objective Type Questions and Short Answer Type Questions (to be answered in 40-50 words) will be asked.

Section B
Creative Writing Skills-18 Marks

3. Notice, up to 50 words. One out of the two given questions to be answered.
(4 Marks: Format :1 / Content: 2 / Accuracy of Spelling and Grammar: 1).
4. Formal/Informal Invitation and Reply, up to 50 words. One out of the two given questions to be answered. **(4 Marks:** Format: 1 / Content: 2 / Accuracy of Spelling and Grammar :1).
5. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest). One out of the two given questions to be answered. **(5 Marks:** Format: 1/Organisation of Ideas:1/Content:2/ Accuracy of Spelling and Grammar :1).
6. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be answered.
(5 Marks:Format:1/Organisation of Ideas:1/Content:2/Accuracy of Spelling and Grammar:1).

Section C

Literature Text Book and Supplementary Reading Text- 40 Marks

This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, interpretation, analysis, evaluation and extrapolation beyond the text.

7. One Poetry extract out of two, from the book **Flamingo**, to assess comprehension, interpretation, analysis, inference and appreciation. **(6x1=6 Marks)**
8. One Prose extract out of two, from the book **Vistas**, to assess comprehension, interpretation, analysis, evaluation and appreciation. **(4x1=4 Marks)**
9. One prose extract out of two from the book **Flamingo**, to assess comprehension, interpretation, analysis, inference and evaluation. **(6x1=6Marks)**
10. Short answer type questions **(from Prose and Poetry from the book Flamingo)**, to be answered in 40-50 words each. Questions should elicit inferential responses through critical thinking. Five questions out of the six given, are to be answered. **(5x2=10 Marks)**
11. Short answer type questions, from **Prose (Vistas)**, to be answered in 40- 50 words each. Questions should elicit inferential responses through critical thinking. Any two out of three questions to be done. **(2x2=4 Marks)**
12. One Long answer type question, from **Prose/Poetry (Flamingo)**, to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from the student. Any one out of two questions to be done. **(1x5=5 Marks)**
13. One Long answer type question, based on the chapters from the book **Vistas**, to be answered in 120-150 words, to assess global comprehension and extrapolation beyond the text. Questions to provide analytical and evaluative responses using incidents, events, themes, as reference points. Any one out of two questions to be done. **(1x5=5 Marks)**

Prescribed Books

1. **Flamingo:** English Reader published by National Council of Education Research and Training, New Delhi

Prose

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- Poets and Pancakes
- The Interview
- Going Places

Poetry

- My Mother at Sixty-Six
- Keeping Quiet
- A Thing of Beauty
- A Roadside Stand
- Aunt Jennifer's Tigers

2. **Vistas:** Supplementary Reader published by National Council of Education Research and Training, New Delhi

- The Third Level
- The Tiger King
- Journey to the End of the Earth
- The Enemy
- On the Face of It
- Memories of Childhood
 - The Cutting of My Long Hair
 - We Too are Human Beings

INTERNAL ASSESSMENT

Assessment of Listening Skills	- 05 marks.
Assessment of Speaking Skills	- 05 Marks
Project Work	- 10 Marks

ENGLISH CORE
QUESTION PAPER DESIGN
CLASS- XII (2025-26)

Section	Competencies	Total marks
Reading Skills	Conceptual understanding, decoding, Analyzing, inferring, interpreting, appreciating, literary, conventions and vocabulary, summarizing and using appropriate format/s.	22
Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriate style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity.	18
Literature Text Book and Supplementary Reading Text	Recalling, reasoning, critical thinking, appreciating literary convention, inference, analysis, creativity with fluency.	40
	TOTAL	80
Internal Assessment	Assessment of Listening and Speaking Skills	10
	<ul style="list-style-type: none"> • Listening • Speaking 	5+5
	<ul style="list-style-type: none"> • Project Work 	10
	GRAND TOTAL	100

GUIDELINES FOR INTERNAL ASSESSMENT**Classes XI-XII****Total Marks: 20**

ALS must be seen as an integrated component of all four language skills rather than a compartment of two. Suggested activities, therefore, take into consideration an integration of the four language skills but during assessment, emphasis will be given to speaking and listening, since reading and writing are already being assessed in the written exam.

Assessment of Listening and Speaking Skills: (5+5=10 Marks)**i. Activities:**

- Subject teachers must refer to books prescribed in the syllabus.
- In addition to the above, teachers may plan their own activities and create their own material for assessing the listening and speaking skills.

ii. Parameters for Assessment: The listening and speaking skills are to be assessed on the following parameters:

- Interactive competence (Initiation & turn taking, relevance to the topic)
- Fluency (cohesion, coherence and speed of delivery)
- Pronunciation
- Language (grammar and vocabulary)

SUGGESTIVE RUBRICS

	1	2	3	4	5
Interaction	<ul style="list-style-type: none"> • Contributions are mainly unrelated to those of other speakers • Shows hardly any initiative in the development of conversation • Very limited interaction 	<ul style="list-style-type: none"> • Contributions are often unrelated to those of the other speaker • Generally passive in the development of conversation 	<ul style="list-style-type: none"> • Develops interaction adequately, makes however minimal effort to initiate conversation • Needs constant prompting to take turns 	<ul style="list-style-type: none"> • Interaction is adequately initiated and developed • Takes turn but needs some prompting 	<ul style="list-style-type: none"> • Initiates & logically develops simple conversation on familiar topics • Takes turns appropriately
Fluency & Coherence	<ul style="list-style-type: none"> • Noticeably/ long pauses; rate of speech is slow 	<ul style="list-style-type: none"> • Usually fluent; produces simple speech 	<ul style="list-style-type: none"> • Is willing to speak at length, however repetition is 	<ul style="list-style-type: none"> • Speaks without noticeable effort, with a little repetition 	<ul style="list-style-type: none"> • Speaks fluently almost with no repetition & minimal

	<ul style="list-style-type: none"> • Frequent repetition and/or self-correction this is all right in informal conversation • Links only basic sentences; breakdown of coherence evident 	fluently, but loses coherence in complex communication <ul style="list-style-type: none"> • Often hesitates and/or resorts to slow speech • Topics partly developed; not always concluded logically 	noticeable <ul style="list-style-type: none"> • Hesitates and/or self corrects; occasionally loses coherence • Topics developed, but usually not logically concluded 	<ul style="list-style-type: none"> • Demonstrates hesitation to find words or use correct grammatical structures and/or self-correction • Topics not fully developed to merit. 	hesitation Develops topic fully & coherently
Pronunciation	<ul style="list-style-type: none"> • Frequent inaccurate pronunciation • Communication is severely affected 	<ul style="list-style-type: none"> • Frequently unintelligible articulation • Frequent phonological errors • Major communication problems 	<ul style="list-style-type: none"> • Largely correct pronunciation & clear articulation except occasional errors 	<ul style="list-style-type: none"> • Mostly correct pronunciation & clear articulation • Is clearly understood most of the time; very few phonological errors 	<ul style="list-style-type: none"> • Pronounces correctly & articulates clearly • Is always comprehensible • uses appropriate intonation
Vocabulary & Grammar	<ul style="list-style-type: none"> • Demonstrates almost no flexibility, and mostly struggles for appropriate words • Many Grammatical errors impacting communication 	<ul style="list-style-type: none"> • Is able to communicate on some of the topics, with limited vocabulary. • Frequent errors, but self- corrects 	<ul style="list-style-type: none"> • Is able to communicate on most of the topics, with limited vocabulary. A few grammatical errors 	<ul style="list-style-type: none"> • Is able to communicate on most of the topics with appropriate vocabulary • Minor errors that do not hamper communication 	<ul style="list-style-type: none"> • Is able to communicate on most of the topics using a wide range of appropriate vocabulary, using new words and expression • No grammatical errors

iii. Schedule:

- The practice of listening and speaking skills should be done throughout the academic year.
- The final assessment of the skills is to be done as per the convenience and schedule of the school.

Project Work + Viva: 10 Marks

Out of ten marks, 5 marks will be allotted for the project report/script /essay etc. and 5 marks for the viva

I. Schedule:

- Schools may refer to the suggestive timeline given in these guidelines for the planning, preparation and viva-voce of ALS based projects.
- The final assessment of the skills may be done on the basis of parameters suggested by the Board. Language teachers, however, have the option to adopt/ modify these parameters according to their school specific requirements.

II. Suggestions for Project Work:

- The Project can be inter-disciplinary in theme. The ideas/issues highlighted in the chapters/ poems/ drama given the prescribed books can also be developed in the form of a project. Students can also take up any relevant and age-appropriate theme.
- Such topics may be taken up that provide students with opportunities for listening and speaking. Some suggestions are as follows:

a) Interview-Based research:

Example:

- Students can choose a topic on which to do their research/ interview, e.g. a student can choose the topic: “Evolving food tastes in my neighbourhood” or “Corona pandemic and the fallout on families.” Read the available literature.
 - The student then conducts interviews with a few neighbours on the topic. For an interview, with the help of the teacher, student will frame questions based on the preliminary research/background.
 - The student will then write an essay/ write up / report etc. up to 1000 words on his/her research and submit it. He/ She will then take a viva on the research project. The project can be done individually or in pairs/ groups
- b)** Students listen to podcasts/ interviews/radio or TV documentary on a topic and prepare a report countering or agreeing with the speakers. Write an 800 - 1000 words report and submit. Take a viva on the report.
- c)** Students create their own video/ Audio, after writing a script. Before they decide a format, the following elements can be taken into consideration:
- Theme/topic of the audio / video. Would the child like to pick a current issue or something artistic like theatre?
 - What are the elements that need to be part of the script?
 - Will the video/audio have an interview with one or more guests?

- Would they prefer to improvise while chatting with guests, or work from a script?
- What would be the duration?
- How would they present the script/report to the teacher? Can it be in the form of a narrative?

d) Students write, direct and present a theatrical production, /One act play

This will be a project which will be done as a team. It will involve planning, preparation and presentation. In short, various language skills will be utilised. There will be researching, discussion, writing the script, auditioning and ultimately producing the play. The project will end with a presentation and subsequently a viva. Teachers will be able to assess the core language skills of the students and help them grow as 21st century critical thinkers.

II. Instructions for the Teachers: -

1. Properly orient students about the Project work, as per the present Guidelines.
2. Facilitate the students in the selection of theme and topic.
3. Create a rubric for assessment and share with the students before they start so that they know the parameters of assessment:
 - Teachers need to familiarize themselves with the method of assessing students with the rubric-- a table with different criteria and a grading scale.
 - Choose the criteria on which you will grade students and list them along the left side of the page.
 - Create an even number of columns along the top of the page. These columns will represent potential skill levels of the students.
 - Assessing students on four/five criteria is an easy way to begin. For each criterion, define the ability that student would exhibit at each of the levels.
 - The more detailed you make your criteria, the easier it will be to evaluate each student and define the level at which the student is presenting.

{Sample Rubric is attached at the end for reference}

III. Parameters for Overall Assessment: -

1. Pronunciation:

- When evaluating the pronunciation of the students, teachers must listen for clearly articulated words, pronunciation of unusual spellings and intonation.
- Assess the students for the pronunciation skills and determine at which level the student needs improvement.

2. Vocabulary:

After noting their pronunciation levels, evaluate the students on the use of extensive and appropriate **vocabulary** during the viva. Check if students are using vocabulary appropriate to the context about which they are speaking.

3. Accuracy:

Grammar has always been an important component of language skills. As students speak/answer the questions during the viva, listen to their **grammatical structures**. *Are they competent enough to use multiple tenses? Is their word order correct in a given sentence?* An effective speaker will automatically use the correct grammatical structures of his language.

4. Communication:

Assessing the **communication skills** of the students means looking at more than language. Look at how creatively students use the language to make their points understood. Students with a low level of vocabulary and grammar may still have good communication skills if they are able to make the teacher understand their point of view.

5. Interaction:

- During the viva teachers need to ask the students some questions. Questions need to be based on the projects that have been suggested or chosen by the students.
- It is imperative for a teacher to read the essays/project reports before they can be ready to ask questions.
- Teachers need to observe how students answer the questions that are posed to them: *Are they able to understand and answer questions independently or can they answer only when the questions are translated into simpler words or repeated? Are they able to give appropriate responses in a conversation?*
- These elements of **interaction** are necessary for clear and effective communication. A student with effective interaction skills will be able to answer questions with relative ease and follow the flow of conversation.

6. Fluency:

- Fluency may be the easiest quality to judge in the students' speech: *How comfortable are they as they speak and express themselves? How easily do the words come out? Are there inappropriate pauses and gaps in the way a student speaks?*
- **Fluency** is a judgement of this communication and is an important criterion when evaluating speaking skills. These criteria: pronunciation, vocabulary, accuracy, interaction and fluency are all the hallmarks of a student's overall speaking abilities.
- Teachers must also remember that some **students may excel in one area and struggle in another**. Helping the students understand these issues will enable them to become effective speakers in future. Let your students know that you will be assessing them in these various areas when you evaluate their progress and encourage them to work and improve in these areas.
- **Finally**, teachers must remember that a proper evaluation of the students will take into consideration **more than just one oral interview on the final ASL project**. Teachers must take note of a student's progress throughout the academic year.

IV. Project-Portfolio/ Project Report

The **Project-Portfolio/Project Report** is a compilation of the work that the students produce during the process of working on their ALS Project.

The Project-Portfolio may include the following:

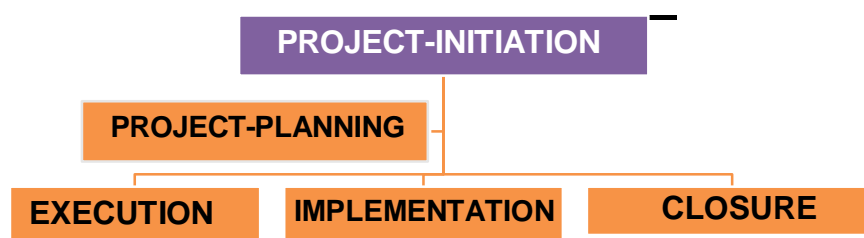
- Cover page, with title of project, school details/details of students.
- Statement of purpose/objectives/goals
- Certificate of completion under the guidance of the teacher.
- Students Action Plan for the completion of assigned tasks.
- Materials such as scripts for the theatre/role play, questionnaires for interview, written assignments, essays, survey-reports and other material evidence of learning progress and academic accomplishment.
- The 800-1000 words essay/Script/Report.
- Student/group reflections.
- If possible, Photographs that capture the positive learning experiences of the student(s).
- List of resources/bibliography

The following points must be kept for consideration while assessing the project portfolios:

- Quality of content of the project
- Accuracy of information
- Adherence to the specified timeline
- Content in respect of (spellings, grammar, punctuation)
- Clarity of thoughts and ideas
- Creativity
- Contributions by group members
- Knowledge and experience gained

V. Suggestive Timeline:

The FIVE Steps in Project Plan



Month	Objectives
Planning and Research for the Project Work Preferably till November-December	<ul style="list-style-type: none"> Teachers plan a day to orient students about the ALS projects, details are shared with all stakeholders. Students choose a project, select team members and develop project- plan. Group meets (preferably online) and reports to the team leader about the progress: shortfalls and successes are detailed. Team leader apprises teacher-mentor. Students working individually or in pairs also update the teachers. A logical, deliverable and practical plan is drafted by the team/ pair/individual. Goals/objectives are clearly defined for all. Work is delegated to team members by the team leader. Students wishing to work alone develop their own plan of Action. Detailed project schedules are shared with the teacher.
December- January	<ul style="list-style-type: none"> Suggestions and improvements are shared by the teacher, wherever necessary. Group members coordinate and keep communication channels open for interaction. Gaps (if any) are filled with the right skill sets by the Team Leader/ individual student. The final draft of the project portfolio/ report is prepared and submitted for evaluation.
January-February	<ul style="list-style-type: none"> Students are assessed on their group/pair/individual presentations on allotted days. Final Viva is conducted by the External/Internal examiner.
February-March or as per the timelines given by the Board	<ul style="list-style-type: none"> Marks are uploaded on the CBSE website.

**SAMPLE RUBRIC FOR ALS Project Work (For Theatre/Role Play/Oral presentation/
Interview/ Podcast)**

CATEGORY	1	2	3	4	5
TIME LIMIT	Presentation is less than or more than 5 minutes long	Presentation exceeded or less than specified time limit by 4 to 5 minutes	Presentation exceeded or less than specified time limit by 3 to 4 minutes	Presentation exceeded or less than specified time limit by 2 to 3 mins	Student/ group adhered to the given time limit
CONTENT/ SCRIPT/ QUESTIONNAIRE	Script is not related to topic or issue	Well written script/content shows little understanding of parts of topic	Well written script/content shows good understanding of parts of topic	Well written script/content shows a good understanding of subject topic	Well written script/content shows full understanding of subject topic
CREATIVITY	No props/ costumes/ stage presentation lack-lustre	Some work done, average stage set-up and costumes	Well organized presentation, could have improved	Logical use of props, reasonable work done, creative	Suitable props /effort seen/ considerable work done/ Creative and relevant costumes
PREPAREDNESS	Student/ group seems to be unprepared	Some visible preparedness but Rehearsal is lacking	Somewhat prepared, rehearsal is lacking	Good preparedness but need better rehearsal	Complete Preparedness /rehearsed presentation
CLARITY OF SPEECH	Lack of clarity in presentation many words mis-pronounced	Speaks clearly some words are mis-pronounced	Speaks clearly 90% of the time/ a few mis-pronounced words	Speaks clearly and distinctly 95% of time/ Few mis-pronounced words	Speaks clearly distinctly 95% of time/ fluency in pronunciation
USE OF PROPS (Theatre/Role Play)	Only 1/no relevant props used Very little use of facial expressions /body language, Does not generate much interest	1 to 2 relevant props used Little Use of facial expressions and body language	2 to 3 relevant props used Facial expressions and body language is used to try to generate some enthusiasm	3 to 4 relevant props used Facial expression and body language sometimes generate enthusiasm with the topic	4 to 5 relevant props used Facial expression and body language generate enthusiasm with the topic
PORTFOLIO- PRESENTATION	Inadequate & unimpressive	Somewhat suitable & convincing	Adequate & relevant	Interesting, enjoyable & relevant	Brilliant, creative& exceptional

Mathematics
Subject Code – 041
Classes XI-XII (2025 – 26)

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. Senior Secondary stage is a launching stage from where the students go either for higher academic education in Mathematics or for professional courses like Engineering, Physical and Biological science, Commerce or Computer Applications. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in Focus Group on Teaching of Mathematics 2005 which is to meet the emerging needs of all categories of students. Motivating the topics from real life situations and other subject areas, greater emphasis has been laid on application of various concepts.

Objectives

The broad objectives of teaching Mathematics at senior school stage intend to help the students:

- to acquire knowledge and critical understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles, symbols and mastery of underlying processes and skills.
- to feel the flow of reasons while proving a result or solving a problem.
- to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method.
- to develop positive attitude to think, analyze and articulate logically.
- to develop interest in the subject by participating in related competitions.
- to acquaint students with different aspects of Mathematics used in daily life.
- to develop an interest in students to study Mathematics as a discipline.
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics.

COURSE STRUCTURE

CLASS XI (2025-26)

Three Hours

Max Marks: 80

No.	Units	Marks
I.	Sets and Functions	23
II.	Algebra	25
III.	Coordinate Geometry	12
IV.	Calculus	08
V.	Statistics and Probability	12
	Total	80
	Internal Assessment	20

*No chapter/unit-wise weightage. Care to be taken to cover all the chapters.

Unit-I: Sets and Functions

1. Sets

Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

2. Relations & Functions

Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (up to $\mathbb{R} \times \mathbb{R} \times \mathbb{R}$). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.

3. Trigonometric Functions

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$, for all x . Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications. Deducing identities like the following:

$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \mp \cot y}{\cot y \pm \cot x}$$

$$\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2}(\alpha \pm \beta) \cos \frac{1}{2}(\alpha \mp \beta)$$

$$\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$$

$$\cos \alpha - \cos \beta = -2 \sin \frac{1}{2}(\alpha + \beta) \sin \frac{1}{2}(\alpha - \beta)$$

Identities related to $\sin 2x$, $\cos 2x$, $\tan 2x$, $\sin 3x$, $\cos 3x$ and $\tan 3x$.

Unit-II: Algebra

1. Complex Numbers and Quadratic Equations

Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane.

2. Linear Inequalities

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.

3. Permutations and Combinations

Fundamental principle of counting. Factorial n . $(n!)$ Permutations and combinations, derivation of Formulae for ${}^n P_r$, ${}^n C_r$ and their connections, simple applications.

4. Binomial Theorem

Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.

5. Sequence and Series

Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M

Unit-III: Coordinate Geometry

1. Straight Lines

Brief recall of two-dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form. Distance of a point from a line.

2. Conic Sections

Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

3. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.

Unit-IV: Calculus

1. Limits and Derivatives

Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions of polynomial and trigonometric functions.

Unit-V Statistics and Probability

1. Statistics

Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.

2. Probability

Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.

MATHEMATICS QUESTION PAPER DESIGN

CLASS – XI (2025-26)

Time: 3 hours

Max. Marks: 80

S. No.	Typology of Questions	Total Marks	% Weight age
1	<p>Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.</p> <p>Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas</p>	44	55
2	<p>Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.</p>	20	25
3	<p>Analysing: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations</p> <p>Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.</p> <p>Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions</p>	16	20
	Total	80	100

- No chapter wise weightage. Care to be taken to cover all the chapters*
- Suitable internal variations may be made for generating various templates keeping the overall weightage to different form of questions and typology of questions same.*

Choice(s):

There will be no overall choice in the question paper. However, 33% internal choices will be given in all the sections

INTERNAL ASSESSMENT	20 MARKS
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities	10 Marks

Note: Please refer the guidelines given under XII Mathematics Syllabus.

CLASS – XI (2025-26)

The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

S.No.	Content
Unit-I: Sets and Functions	
1.	Sets
	Practical problems on Union and Intersection of two sets.
2.	Relations and Functions
	Composition of Functions
3.	Trigonometric Functions
	General solution of trigonometric equations of the type $\sin y = \sin a$, $\cos y = \cos a$ and $\tan y = \tan a$.
Unit-II: Algebra	
1.	Principle of Mathematical Induction
	Process of the proof by induction, motivating the application of the method by looking at natural numbers as the least inductive subset of real numbers. The principle of mathematical induction and simple applications.
2.	(Complex Numbers and) Quadratic Equations
	Polar representation of complex numbers. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system.
3.	Linear Inequalities
	Graphical solution of linear inequalities in two variables. Graphical method of finding a solution of system of linear inequalities in two variables.
4.	Binomial Theorem
	General and middle term in binomial expansion.
5.	Sequence and Series
	Formulae for the following special sums $\sum_{k=1}^n k, \sum_{k=1}^n k^2, \sum_{k=1}^n k^3$
Unit-III: Coordinate Geometry	
1.	Straight Lines
	Normal form. General equation of a line.
2.	Introduction to Three-dimensional Geometry
	Section formula.
Unit-IV: Calculus	
1.	Limits and Derivatives
	Derivatives of composite functions (Chain rule).
Unit-V Statistics and Probability	
1.	Probability
	Random experiments; outcomes, sample space (set representation).

COURSE STRUCTURE

CLASS – XII

(2025-26)

One Paper

Max. Marks: 80

No.	Units	Marks
I.	Relations and Functions	08
II.	Algebra	10
III.	Calculus	35
IV.	Vectors and Three - Dimensional Geometry	14
V.	Linear Programming	05
VI.	Probability	08
	Total	80
	Internal Assessment	20

Unit-I: Relations and Functions

1. Relations and Functions

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.

2. Inverse Trigonometric Functions

Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.

Unit-II: Algebra

1. Matrices

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

2. Determinants

Determinant of a square matrix (up to 3×3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.

Unit-III: Calculus

1. Continuity and Differentiability

Continuity and differentiability, chain rule, derivative of composite functions, derivatives of inverse trigonometric functions like $\sin^{-1} x$, $\cos^{-1} x$ and $\tan^{-1} x$, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.

2. Applications of Derivatives

Applications of derivatives: rate of change of quantities, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real- life situations).

3. Integrals

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them.

$$\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2 + bx + c}, \int \frac{dx}{\sqrt{ax^2 + bx + c}}, \int \frac{px + q}{ax^2 + bx + c} dx,$$
$$\int \frac{px + q}{\sqrt{ax^2 + bx + c}} dx, \int \sqrt{a^2 \pm x^2} dx, \int \sqrt{x^2 - a^2} dx, \int \sqrt{ax^2 + bx + c} dx$$

Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.

4. Application of the Integrals

Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)

5. Differential Equations

Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:

$$\frac{dy}{dx} + py = q, \text{ where } p \text{ and } q \text{ are functions of } x \text{ or constants.}$$

$$\frac{dx}{dy} + px = q, \text{ where } p \text{ and } q \text{ are functions of } y \text{ or constants.}$$

Unit-IV: Vectors and Three-dimensional Geometry

1. Vectors

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.

2. Three-dimensional Geometry

Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.

Unit-V: Linear Programming Problem

1. Linear Programming

Introduction, related terminology such as constraints, objective function, optimization, graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).

Unit-VI: Probability

1. Probability

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem.

MATHEMATICS (Code No. – 041)**QUESTION PAPER DESIGN****CLASS – XII (2025-26)****Time: 3 hours****Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	20	25
3	Analysing : Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	16	20
	Total	80	100

1. No chapter wise weightage. Care to be taken to cover all the chapters
2. Suitable internal variations may be made for generating various templates keeping the overall weightage to different form of questions and typology of questions same.

Choice(s):

There will be no overall choice in the question paper. However, 33% internal choices will be given in all the sections

INTERNAL ASSESSMENT	20 MARKS
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities	10 Marks

Note: For activities NCERT Lab Manual may be referred.

Conduct of Periodic Tests:

Periodic Test is a Pen and Paper assessment which is to be conducted by the respective subject teacher. The format of periodic test must have questions items with a balance mix, such as, very short answer (VSA), short answer (SA) and long answer (LA) to effectively assess the knowledge, understanding, application, skills, analysis, evaluation and synthesis. Depending on the nature of subject, the subject teacher will have the liberty of incorporating any other types of questions too. The modalities of the PT are as follows:

- a) **Mode:** The periodic test is to be taken in the form of pen-paper test.
- b) **Schedule:** In the entire Academic Year, three Periodic Tests in each subject may be conducted as follows:

Test	Pre-Mid-term (PT-I)	Mid-Term (PT-II)	Post Mid-Term (PT-III)
Tentative Month	July-August	November	December-January

This is only a suggestive schedule and schools may conduct periodic tests as per their convenience. The winter bound schools would develop their own schedule with similar time gaps between two consecutive tests.

- c) **Average of Marks:** Once schools complete the conduct of all the three periodic tests, they will convert the weightage of each of the three tests into ten marks each for identifying best two tests. The best two will be taken into consideration and the average of the two shall be taken as the final marks for PT.
- d) The school will ensure simple documentation to keep a record of performance as suggested in detail circular no. Acad-05/2017.
- e) **Sharing of Feedback/Performance:** The students' achievement in each test must be shared with the students and their parents to give them an overview of the level of learning that has taken place during different periods. Feedback will help parents formulate interventions (conducive ambience, support materials, motivation and morale-boosting) to further enhance learning. A teacher, while sharing the feedback with student or parent, should be empathetic, non- judgmental and motivating. It is recommended that the teacher share best examples/performances of IA with the class to motivate all learners

Assessment of Activity Work:

Throughout the year any 10 activities shall be performed by the student from the activities given in the NCERT Laboratory Manual for the respective class (XI or XII) which is available on the link:

<http://www.ncert.nic.in/exemplar/labmanuals.html> a record of the same may be kept by the student. An year end test on the activity may be conducted

The weightage are as under:

- The activities performed by the student throughout the year and record keeping: 5 marks
- Assessment of the activity performed during the year end test: 3 marks
- Viva-voce: 2 marks

Prescribed Books:

- 1) Mathematics Textbook for Class XI, NCERT Publications
- 2) Mathematics Part I - Textbook for Class XII, NCERT Publication
- 3) Mathematics Part II - Textbook for Class XII, NCERT Publication
- 4) Mathematics Exemplar Problem for Class XI, Published by NCERT
- 5) Mathematics Exemplar Problem for Class XII, Published by NCERT
- 6) Mathematics Lab Manual class XI, published by NCERT
- 7) Mathematics Lab Manual class XII, published by NCERT

ACCOUNTANCY (Subject Code 055)

Class XI-XII (2025-26)

Rationale

The course in accountancy is introduced at plus two stage of senior second of school education, as the formal commerce education is provided after ten years of schooling. With the fast changing economic scenario, accounting as a source of financial information has carved out a place for itself at the senior secondary stage. Its syllabus content provide students a firm foundation in basic accounting concepts and methodology and also acquaint them with the changes taking place in the preparation and presentation of financial statements in accordance to the applicable accounting standards and the Companies Act 2013.

The course in accounting put emphasis on developing basic understanding about accounting as an information system. The emphasis in Class XI is placed on basic concepts and process of accounting leading to the preparation of accounts for a sole proprietorship firm. The students are also familiarized with basic calculations of Goods and Services Tax (GST) in recording the business transactions. The accounting treatment of GST is confined to the syllabus of class XI.

The increased role of ICT in all walks of life cannot be overemphasized and is becoming an integral part of business operations. The learners of accounting are introduced to Computerized Accounting System at class XI and XII. Computerized Accounting System is a compulsory component which is to be studied by all students of commerce in class XI; whereas in class XII it is offered as an optional subject to Company Accounts and Analysis of Financial Statements. This course is developed to impart skills for designing need based accounting database for maintaining book of accounts.

The complete course of Accountancy at the senior secondary stage introduces the learners to the world of business and emphasize on strengthening the fundamentals of the subject.

Objectives:

1. To familiarize students with new and emerging areas in the preparation and presentation of financial statements.
2. To acquaint students with basic accounting concepts and accounting standards.
3. To develop the skills of designing need based accounting database.
4. To appreciate the role of ICT in business operations.
5. To develop an understanding about recording of business transactions and preparation of financial statements.
6. To enable students with accounting for Not-for-Profit organizations, accounting for Partnership Firms and company accounts.

Accountancy (Subject Code 055)

Class-XI (2025-26)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units	Marks
Part A: Financial Accounting-1	
Unit-1: Theoretical Framework	12
Unit-2: Accounting Process	44
Part B: Financial Accounting-II	
Unit-3: Financial Statements of Sole Proprietorship	24
Part C: Project Work	20

PART A: FINANCIAL ACCOUNTING - I

Unit-1: Theoretical Frame Work

Units/Topics	Learning Outcomes
Introduction to Accounting <ul style="list-style-type: none">Accounting- concept, meaning, as a source of information, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business.Basic Accounting Terms- Entity, Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Expenditure (Capital and Revenue), Expense, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount) Theory Base of Accounting <ul style="list-style-type: none">Fundamental accounting assumptions: GAAP: ConceptBasic Accounting Concept : Business Entity, Money Measurement, Going Concern,	After going through this Unit, the students will be able to: <ul style="list-style-type: none">describe the meaning, significance, objectives, advantages and limitations of accounting in the modern economic environment with varied types of business and non-business economic entities.identify / recognise the individual(s) and entities that use accounting information for serving their needs of decision making.explain the various terms used in accounting and differentiate between different related terms like current and non-current, capital and revenue.give examples of terms like business transaction, liabilities, assets, expenditure and purchases.explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year.differentiate among income, profits and gains.

<p>Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism,</p> <ul style="list-style-type: none"> • Materiality and Objectivity • System of Accounting. Basis of Accounting: cash basis and accrual basis • Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (IndAS) • Goods and Services Tax (GST): Characteristics and Advantages. 	<ul style="list-style-type: none"> • state the meaning of fundamental accounting assumptions and their relevance in accounting. • describe the meaning of accounting assumptions and the situation in which an assumption is applied during the accounting process. • explain the meaning, applicability, objectives, advantages and limitations of accounting standards. • appreciate that various accounting standards developed nationally and globally are in practice for bringing parity in the accounting treatment of different items. • acknowledge the fact that recording of accounting transactions follows double entry system. • explain the bases of recording accounting transaction and to appreciate that accrual basis is a better basis for depicting the correct financial position of an enterprise. • Explain the meaning, advantages and characteristic of GST.
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Unit-2: Accounting Process

Units/Topics	Learning Outcomes
<p>Recording of Business Transactions</p> <ul style="list-style-type: none"> • Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit. • Recording of Transactions: Books of Original Entry- Journal • Special Purpose books: • Cash Book: Simple, cash book with bank column and petty cashbook • Purchases book 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of accounting equation. • explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses. • appreciate that on the basis of source

<ul style="list-style-type: none"> • Sales book • Purchases return book • Sales return book • Journal proper <p>Note: Including trade discount, freight and cartage expenses for simple GST calculation.</p> <ul style="list-style-type: none"> • Ledger: Format, Posting from journal and subsidiary books, Balancing of accounts <p>Bank Reconciliation Statement:</p> <ul style="list-style-type: none"> • Need and preparation, Bank Reconciliation Statement <p>Depreciation, Provisions and Reserves</p> <ul style="list-style-type: none"> • Depreciation: Meaning, Features, Need, Causes, factors • Other similar terms: Depletion and Amortisation • Methods of Depreciation: <ul style="list-style-type: none"> i. Straight Line Method (SLM) ii. Written Down Value Method (WDV) <p>Note: Excluding change of method</p> <ul style="list-style-type: none"> • Difference between SLM and WDV; Advantages of SLM and WDV • Method of recoding depreciation <ul style="list-style-type: none"> i. Charging to asset account ii. Creating provision for depreciation/accumulated depreciation account • Treatment of disposal of asset • Provisions, Reserves, Difference Between Provisions and Reserves. • Types of Reserves: <ul style="list-style-type: none"> i. Revenue reserve ii. Capital reserve iii. General reserve iv. Specific reserve v. Secret Reserve • Difference between capital and revenue reserve <p>Trial balance and Rectification of Errors</p>	<p>documents, accounting vouchers are prepared for recording transaction in the books of accounts.</p> <ul style="list-style-type: none"> • develop the understanding of recording of transactions in journal and the skill of calculating GST. • explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in Cash book. • describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books . • appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement and to reconcile both the balances, bank reconciliation statement is prepared. • develop understanding of preparing bank reconciliation statement. • appreciate that for ascertaining the position of individual accounts, transactions are posted from subsidiary books and journal proper into the concerned accounts in the ledger and develop the skill of ledger posting. • explain the necessity of providing depreciation and develop the skill of using different methods for computing depreciation. • understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation account. • appreciate the method of asset disposal through the concerned asset account or by preparing asset disposal account. • appreciate the need for creating reserves and also making provisions for events which may
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<ul style="list-style-type: none"> • Trial balance: objectives, meaning and preparation <p>(Scope: Trial balance with balance method only)</p> <ul style="list-style-type: none"> • Errors: classification-errors of omission, commission, principles, and compensating; their effect on Trial Balance. • Detection and rectification of errors; <ul style="list-style-type: none"> (i) Errors which do not affect trial balance (ii) Errors which affect trial balance • preparation of suspense account. 	<p>belong to the current year but may happen in next year.</p> <ul style="list-style-type: none"> • appreciate the difference between reserve and reserve fund. • state the need and objectives of preparing trial balance and develop the skill of preparing trial balance. • appreciate that errors may be committed during the process of accounting. • understand the meaning of different types of errors and their effect on trial balance. • develop the skill of identification and location of errors and their rectification and preparation of suspense account.
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Part B: Financial Accounting - II

Unit 3: Financial Statements of Sole Proprietorship

Units/Topics	Learning Outcomes
<p>Financial Statements</p> <p>Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Opening journal entry. Trading and Profit and Loss Account: Gross Profit, Operating profit and Net profit. Preparation. Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation. Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, Abnormal loss, Goods taken for personal use/staff welfare, interest on capital and managers commission. Preparation of Trading and Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments.</p> <p>Incomplete Records</p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning of financial statements the purpose of preparing financial statements. • state the meaning of gross profit, operating profit and net profit and develop the skill of preparing trading and profit and loss account. • explain the need for preparing balance sheet. • understand the technique of grouping and marshalling of assets and liabilities. • appreciate that there may be certain items other than those shown in trial balance which may need adjustments while preparing financial statements. • develop the understanding and skill to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc. • develop the skill of preparation of trading and profit and loss account and balance sheet.

Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method. (excluding conversion method)	
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Part C: Project Work (Any One)

1. Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers.
2. Preparation of Bank Reconciliation Statement with the given cash book and the pass book with twenty to twenty-five transactions.
3. Comprehensive project of any sole proprietorship business. This may state with journal entries and their ledgering, preparation of Trial balance. Trading and Profit and Loss Account and Balance Sheet. Expenses, incomes and profit (loss), assets and liabilities are to be depicted using pie chart / bar diagram. This may include simple GST related transactions.

PROJECT WORK

It is suggested to undertake this project after completing the unit on preparation of financial statements. The student(s) will be allowed to select any business of their choice or develop the transaction of imaginary business. The project is to run through the chapters and make the project an interesting process. The amounts should emerge as more realistic and closer to reality.

Specific Guidelines for Teachers

Give a list of options to the students to select a business form. You can add to the given list:

- | | | |
|-------------------------|-------------------------------|--------------------------|
| 1. A beauty parlour | 10. Men's wear | 19. A coffee shop |
| 2. Men's saloon | 11. Ladies wear | 20. A music shop |
| 3. A tailoring shop | 12. Kiddies wear | 21. A juice shop |
| 4. A canteen | 13. A Saree shop | 22. A school canteen |
| 5. A cake shop | 14. Artificial jewellery shop | 23. An ice cream parlour |
| 6. A confectionery shop | 15. A small restaurant | 24. A sandwich shop |
| 7. A chocolate shop | 16. A sweet shop | 25. A flower shop |
| 8. A dry cleaner | 17. A grocery shop | |
| 9. A stationery shop | 18. A shoe shop | |

After selection, advise the student(s) to visit a shop in the locality (this will help them to settle on a realistic amounts different items. The student(s) would be able to see the things as they need to invest in furniture, decor, lights, machines, computers etc.

A suggested list of different item is given below.

- | | |
|--|---|
| 1. Rent | 19. Wages and Salary |
| 2. Advance rent [approximately three months] | 20. Newspaper and magazines |
| 3. Electricity deposit | 21. Petty expenses |
| 4. Electricity bill | 22. Tea expenses |
| 5. Electricity fitting | 23. Packaging expenses |
| 6. Water bill | 24. Transport |
| 7. Water connection security deposit | 25. Delivery cycle or a vehicle purchased |
| 8. Water fittings | 26. Registration |
| 9. Telephone bill | 27. Insurance |
| 10. Telephone security deposit | 28. Auditors fee |
| 11. Telephone instrument | 29. Repairs & Maintenance |
| 12. Furniture | 30. Depreciations |
| 13. Computers | 31. Air conditioners |
| 14. Internet connection | 32. Fans and lights |
| 15. Stationery | 33. Interior decorations |
| 16. Advertisements | 34. Refrigerators |
| 17. Glow sign | 35. Purchase and sales |
| 18. Rates and Taxes | |

At this stage, performas of bulk of originality and ledger may be provided to the students and they may be asked to complete the same.

In the next step the students are expected to prepare the trial balance and the financial statements.

Suggested Question Paper Design
Accountancy (Subject Code 055)
Class XI (2025-26)

Theory: 80 Marks
Project: 20 Marks

3 hrs.

S N	Typology of Questions	Marks	Percentage
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
3	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	24	30%
4	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	TOTAL	80	100%

Accountancy (Subject Code 055)
Class-XII (2025-26)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units			Marks
Part A	Accounting for Partnership Firms and Companies		
	Unit 1. Accounting for Partnership Firms		36
	Unit 2. Accounting for Companies		24
			60
Part B	Financial Statement Analysis		
	Unit 3. Analysis of Financial Statements		12
	Unit 4. Cash Flow Statement		8
			20
Part C	Project Work		20
	Project work will include:		
	Project File	12 Marks	
	Viva Voce	8 Marks	
Or			
Part B	Computerized Accounting		
	Unit 4. Computerized Accounting		20
Part C	Practical Work		20
	Practical work will include:		
	Practical File 12 Marks		
	Viva Voce 8 Marks		

Part A: Accounting for Partnership Firms and Companies

Unit 1: Accounting for Partnership Firms

Units/Topics	Learning Outcomes
<ul style="list-style-type: none"> Partnership: features, Partnership Deed. Provisions of the Indian Partnership Act 1932 in the absence of partnership deed. Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account- division of profit among partners, guarantee of profits. Past adjustments (relating to interest on capital, interest on drawing, salary and profit sharing ratio). Goodwill: meaning, nature, factors affecting and methods of valuation - average profit, super profit and capitalization. <p>Note: Interest on partner's loan is to be treated as a charge against profits.</p> <p>Goodwill: meaning, factors affecting, need for valuation, methods for calculation (average profits, super profits and capitalization), adjusted through partners capital/ current account.</p> <p>Accounting for Partnership firms - Reconstitution and Dissolution.</p> <ul style="list-style-type: none"> Change in the Profit Sharing Ratio among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves, accumulated profits and losses. Preparation of revaluation account and balance sheet. Admission of a partner - effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and reassessment of liabilities, treatment of reserves, accumulated profits and losses, 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> state the meaning of partnership, partnership firm and partnership deed. describe the characteristic features of partnership and the contents of partnership deed. discuss the significance of provision of Partnership Act in the absence of partnership deed. differentiate between fixed and fluctuating capital, outline the process and develop the understanding and skill of preparation of Profit and Loss Appropriation Account. develop the understanding and skill of preparation profit and loss appropriation account involving guarantee of profits. develop the understanding and skill of making past adjustments. state the meaning, nature and factors affecting goodwill develop the understanding and skill of valuation of goodwill using different methods. state the meaning of sacrificing ratio, gaining ratio and the change in profit sharing ratio among existing partners. develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing revaluation account and balance sheet. explain the effect of change in profit sharing ratio on admission of a new partner. develop the understanding and skill of

<p>adjustment of capital accounts and preparation of capital, current account and balance sheet.</p> <ul style="list-style-type: none"> • Retirement and death of a partner: effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits, losses and reserves, adjustment of capital accounts and preparation of capital, current account and balance sheet. Preparation of loan account of the retiring partner. • Calculation of deceased partner's share of profit till the date of death. Preparation of deceased partner's capital account and his executor's account. • Dissolution of a partnership firm: meaning of dissolution of partnership and partnership firm, types of dissolution of a firm. Settlement of accounts - preparation of realization account, and other related accounts: capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)). <p>Note:</p> <p>(i) If the realized value of tangible assets is not given it should be considered as realized at book value itself.</p> <p>(ii) If the realized value of intangible assets is not given it should be considered as nil (zero value).</p> <p>(ii) In case, the realization expenses are borne by a partner, clear indication should be given regarding the payment thereof.</p>	<p>treatment of goodwill as per AS-26, treatment of revaluation of assets and re-assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of capital, current account and balance sheet of the new firm.</p> <ul style="list-style-type: none"> • explain the effect of retirement / death of a partner on change in profit sharing ratio. • develop the understanding of accounting treatment of goodwill, revaluation of assets and re-assessment of liabilities and adjustment of accumulated profits, losses and reserves on retirement / death of a partner and capital adjustment. • develop the skill of calculation of deceased partner's share till the time of his death and prepare deceased partner's and executor's account. • discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after retirement / death of a partner. • understand the situations under which a partnership firm can be dissolved. • develop the understanding of preparation of realisation account and other related accounts.
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Unit-3 Accounting for Companies

Units/Topics	Learning Outcomes
<p>Accounting for Share Capital</p> <ul style="list-style-type: none"> • Features and types of companies. • Share and share capital: nature and types. 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning of share and share capital

<ul style="list-style-type: none"> Accounting for share capital: issue and allotment of equity and preference shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. Concept of Private Placement and Employee Stock Option Plan (ESOP), Sweat Equity. Accounting treatment of forfeiture and re-issue of shares. Disclosure of share capital in the Balance Sheet of a company. <p>Accounting for Debentures</p> <ul style="list-style-type: none"> Debentures: Meaning, types, Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security-concept, interest on debentures (concept of TDS is excluded). Writing off discount / loss on issue of debentures. <p>Note: Discount or loss on issue of debentures to be written off in the year debentures are allotted from Security Premium Reserve (if it exists) and then from Statement of Profit and Loss as Financial Cost (AS 16)</p>	<p>and differentiate between equity shares and preference shares and different types of share capital.</p> <ul style="list-style-type: none"> understand the meaning of private placement of shares and Employee Stock Option Plan. explain the accounting treatment of share capital transactions regarding issue of shares. develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares. describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013. explain the accounting treatment of different categories of transactions related to issue of debentures. develop the understanding and skill of writing off discount / loss on issue of debentures. understand the concept of collateral security and its presentation in balance sheet. develop the skill of calculating interest on debentures and its accounting treatment. state the meaning of redemption of debentures.
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Part B: Financial Statement Analysis

Unit 4: Analysis of Financial Statements

Units/Topics	Learning Outcomes
<p>Financial statements of a Company:</p> <p>Meaning, Nature, Uses and importance of financial Statement.</p> <p>Statement of Profit and Loss and Balance Sheet in</p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> develop the understanding of major headings and sub-headings (as per Schedule III to the

<p>prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)</p> <p>Note: <i>Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded.</i></p> <ul style="list-style-type: none"> • Financial Statement Analysis: Meaning, Significance Objectives, importance and limitations. • Tools for Financial Statement Analysis: Comparative statements, common size statements, Ratio analysis, Cash flow analysis. • Accounting Ratios: Meaning, Objectives, Advantages, classification and computation. • Liquidity Ratios: Current ratio and Quick ratio. • Solvency Ratios: Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio. Debt to Capital Employed Ratio. • Activity Ratios: Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio, Fixed Asset Turnover Ratio, Net Asset Turnover Ratio and Working Capital Turnover Ratio. • Profitability Ratios: Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment. 	<p>Companies Act, 2013) of balance sheet as per the prescribed norms / formats.</p> <ul style="list-style-type: none"> • state the meaning, objectives and limitations of financial statement analysis. • discuss the meaning of different tools of 'financial statements analysis'. • develop the skill of preparation of preparation of comparative and common size statement, understand their uses and difference between the two. • state the meaning, objectives and significance of different types of ratios. • develop the understanding of computation of current ratio and quick ratio. • develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio. • develop the skill of computation of inventory turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio and others. • develop the skill of computation of gross profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment.
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Note: Net Profit Ratio is to be calculated on the basis of profit before and after tax.

Unit 5: Cash Flow Statement

Units/Topics	Learning Outcomes
<ul style="list-style-type: none"> • Meaning, objectives Benefits, Cash and Cash Equivalents, Classification of Activities and preparation (as per AS 3 (Revised) (Indirect Method only) 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning and objectives of cash flow statement.

<p>Note:</p> <p><i>(i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.</i></p> <p><i>(ii) Bank overdraft and cash credit to be treated as short term borrowings.</i></p> <p><i>(iii) Current Investments to be taken as Marketable securities unless otherwise specified.</i></p>	<ul style="list-style-type: none"> • develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments.
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Note: Previous years' Proposed Dividend to be given effect, as prescribed in AS-4, Events occurring after the Balance Sheet date. Current years' Proposed Dividend will be accounted for in the next year after it is declared by the shareholders.

Project Work

One specific project based on financial statement analysis of a company covering any two aspects from the following:

1. Comparative and common size financial statements
2. Accounting Ratios
3. Segment Reports
4. Cash Flow Statements

OR

Part B: Computerised Accounting

Unit 4: Computerised Accounting

Overview of Computerised Accounting System

- Introduction: Application in Accounting.
- Features of Computerised Accounting System.
- Structure of CAS.
- Software Packages: Generic; Specific; Tailored.

Accounting Application of Electronic Spreadsheet.

- Concept of electronic spreadsheet.
- Features offered by electronic spreadsheet.
- Application in generating accounting information - bank reconciliation statement; asset accounting; loan repayment of loan schedule, ratio analysis
- Data representation- graphs, charts and diagrams.

Using Computerized Accounting System.

- Steps in installation of CAS, codification and Hierarchy of account heads, creation of accounts.
- Data: Entry, validation and verification.
- Adjusting entries, preparation of balance sheet, profit and loss account with closing entries and opening entries.
- Need and security features of the system.

Part C: Practical Work

Prescribed Books:

Financial Accounting -I	Class XI	NCERT Publication
Accountancy -II	Class XI	NCERT Publication
Accountancy -I	Class XII	NCERT Publication
Accountancy -II	Class XII	NCERT Publication
Accountancy – Computerised Accounting System	Class XII	NCERT Publication

Suggested Question Paper Design
Accountancy (Subject Code 055)
Class XII (2025-26)

Theory: 80 Marks
Project: 20 Marks

3 hrs.

S N	Typology of Questions	Marks	Percentage
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
3	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	24	30%
4	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	TOTAL	80	100%

BUSINESS STUDIES (Subject Code 054)

Class XI-XII (2025-26)

Rationale

The courses in Business Studies and Accountancy are introduced at + 2 stage of Senior Secondary Education as formal commerce education is provided after first ten years of schooling. Therefore, it becomes necessary that instructions in these subjects are given in such a manner that students have a good understanding of the principles and practices bearing in business (trade and industry) as well as their relationship with the society.

Business is a dynamic process that brings together technology, natural resources and human initiative in a constantly changing global environment. To understand the framework in which a business operates, a detailed study of the organisation and management of business processes and its interaction with the environment is required. Globalisation has changed the way organizations transact their business.

Information Technology is becoming a part of business operations in more and more organisations. Computerised systems are fast replacing other systems. E-business and other related concepts are picking up fast which need to be emphasized in the curriculum.

The course in Business Studies prepares students to analyse, manage, evaluate and respond to changes which affect business. It provides a way of looking at and interacting with the business environment. It recognizes the fact that business influences and is influenced by social, political, legal and economic forces.

It allows students to appreciate that business is an integral component of society and develops an understanding of many social and ethical issues.

Therefore, to acquire basic knowledge of the business world, a course in Business Studies would be useful. It also informs students of a range of study and work options and bridges the gap between school and work.

Objectives:

- To inculcate business attitude and develop skills among students to pursue higher education, world of work including self employment.
- To develop students with an understanding of the processes of business and its environment;
- To acquaint students with the dynamic nature and inter-dependent aspects of business;
- To develop an interest in the theory and practice of business, trade and industry;
- To familiarize students with theoretical foundations of the process of organizing and managing the operations of a business firm;
- To help students appreciate the economic and social significance of business activity and the social cost and benefits arising there from;
- To acquaint students with the practice of managing the operations and resources of business;
- To enable students to act more effectively and responsibly as consumers, employers, employees and citizens;

BUSINESS STUDIES (Subject Code 054)
CLASS–XI (2025-26)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units		Marks
Part A	Foundations of Business	
1	Nature and Purpose of Business	16
2	Forms of Business Organisations	
3	Public, Private and Global Enterprises	14
4	Business Services	
5	Emerging Modes of Business	10
6	Social Responsibility of Business and Business Ethics	
	Total	40
Part B	Finance and Trade	
7	Sources of Business Finance	20
8	Small Business	
9	Internal Trade	20
10	International Business	
	Total	40
	Project Work (One)	20

Part A: Foundation of Business

Concept includes meaning and features

Unit 1: Evolution and Fundamentals of Business

Content	After going through this unit, the student/ learner would be able to:
History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporations, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy	<ul style="list-style-type: none"> To acquaint the History of Trade and Commerce in India
Business – meaning and characteristics	<ul style="list-style-type: none"> Understand the meaning of business with special reference to economic and non-economic activities. Discuss the characteristics of business.
Business, profession and employment – Concept	<ul style="list-style-type: none"> Understand the concept of business, profession and employment. Differentiate between business, profession and employment.

Objectives of business	<ul style="list-style-type: none"> • Appreciate the economic and social objectives of business. • Examine the role of profit in business.
Classification of business activities - Industry and Commerce	<ul style="list-style-type: none"> • Understand the broad categories of business activities- industry and commerce.
Industry-types: primary, secondary, tertiary Meaning and subgroups	<ul style="list-style-type: none"> • Describe the various types of industries.
Commerce-trade: (types-internal, external; wholesale and retail) and auxiliaries to trade; (banking, insurance, transportation, warehousing, communication, and advertising) – meaning	<ul style="list-style-type: none"> • Discuss the meaning of commerce, trade and auxiliaries to trade. • Discuss the meaning of different types of trade and auxiliaries to trade. • Examine the role of commerce-trade and auxiliaries to trade.
Business risk-Concept	<ul style="list-style-type: none"> • Understand the concept of risk as a special characteristic of business. • Examine the nature and causes of business risks.

Unit 2: Forms of Business organizations

Sole Proprietorship-Concept, merits and limitations	<ul style="list-style-type: none"> • List the different forms of business organizations and understand their meaning. • Identify and explain the concept, merits and limitations of Sole Proprietorship.
Partnership-Concept, types, merits and limitation of partnership, registration of a partnership firm, partnership deed. Types of partners	<ul style="list-style-type: none"> • Identify and explain the concept, merits and limitations of a Partnership firm. • Understand the types of partnership on the basis of duration and on the basis of liability. • State the need for registration of a partnership firm. • Discuss types of partners –active, sleeping, secret, nominal and partner by estoppel.
Hindu Undivided Family Business: Concept	<ul style="list-style-type: none"> • Understand the concept of Hindu Undivided Family Business.
Cooperative Societies-Concept, merits, and limitations.	<ul style="list-style-type: none"> • Identify and explain the concept, merits and limitations of Cooperative Societies. • Understand the concept of consumers, producers, marketing, farmers, credit and housing co-operatives.

Company - Concept, merits and limitations; Types: Private, Public and One Person Company – Concept	<ul style="list-style-type: none"> Identify and explain the concept, merits and limitations of private and public companies. Understand the meaning of one person company. Distinguish between a private company and a public company.
Formation of company - stages, important documents to be used in formation of a company	<ul style="list-style-type: none"> Highlight the stages in the formation of a company. Discuss the important documents used in the various stages in the formation of a company.
Choice of form of business organization	<ul style="list-style-type: none"> Distinguish between the various forms of business organizations. Explain the factors that influence the choice of a suitable form of business organization.

Unit 3: Public, Private and Global Enterprises

Public sector and private sector enterprises – Concept	<ul style="list-style-type: none"> Develop an understanding of Public sector and private sector enterprises
Forms of public sector enterprises: Departmental Undertakings, Statutory Corporations and Government Company	<ul style="list-style-type: none"> Identify and explain the features, merits and limitations of different forms of public sector enterprises
Global Enterprises – Feature Joint venture Public private partnership – concept	<ul style="list-style-type: none"> Develop an understanding of global enterprises, public private partnership by studying their meaning and features.

Unit 4: Business Services

Business services – meaning and types. Banking: Types of bank accounts - savings, current, recurring, fixed deposit and multiple option deposit account	<ul style="list-style-type: none"> Understand the meaning and types of business services. Discuss the meaning and types of Business service Banking Develop an understanding of difference types of bank account.
Banking services with particular reference to Bank Draft, Bank Overdraft, Cash credit. E-Banking: meaning, types of digital payments	<ul style="list-style-type: none"> Develop an understanding of the different services provided by banks
Insurance – Principles. Types – life, health, fire and marine insurance – concept	<ul style="list-style-type: none"> Recall the concept of insurance Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of insurance Discuss the meaning of different

	types of insurance-life, health, fire, marine insurance.
Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier - meaning	<ul style="list-style-type: none"> Understand the utility of different telecom services

Unit 5: Emerging Modes of Business

E - business: concept, scope and benefits	<ul style="list-style-type: none"> Give the meaning of e-business. Discuss the scope of e-business. Appreciate the benefits of e-business Distinguish e-business from traditional business.
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Unit 6: Social Responsibility of Business and Business Ethics

Concept of social responsibility	<ul style="list-style-type: none"> State the concept of social responsibility.
Case of social responsibility	<ul style="list-style-type: none"> Examine the case for social responsibility.
Responsibility towards owners, investors, consumers, employees, government and community	<ul style="list-style-type: none"> Identify the social responsibility towards different interest groups.
Role of business in environment protection	<ul style="list-style-type: none"> Appreciate the role of business in environment protection.
Business Ethics - Concept and Elements	<ul style="list-style-type: none"> State the concept of business ethics. Describe the elements of business ethics.

Part B: Finance and Trade

Unit 7: Sources of Business Finance

Concept of business finance	<ul style="list-style-type: none"> State the meaning, nature and importance of business finance.
Owners' funds- equity shares, preferences share, retained earnings	<ul style="list-style-type: none"> Classify the various sources of funds into owners' funds. State the meaning of owners' funds.
Borrowed funds: debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD)	<ul style="list-style-type: none"> State the meaning of borrowed funds. Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks, Trade credit and inter corporate deposits. Distinguish between owners' funds and borrowed funds.

Unit 8: Small Business and Enterprises

Entrepreneurship Development (ED): Concept, Characteristics and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship	<ul style="list-style-type: none">• Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights
Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act)	<ul style="list-style-type: none">• Understand the meaning of small business
Role of small business in India with special reference to rural areas	<ul style="list-style-type: none">• Discuss the role of small business in India
Government schemes and agencies for small scale industries: National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas	<ul style="list-style-type: none">• Appreciate the various Government schemes and agencies for development of small scale industries. NSIC and DIC with special reference to rural, backward area.

Unit 9: Internal Trade

Internal trade - meaning and types services rendered by a wholesaler and a retailer	<ul style="list-style-type: none">• State the meaning and types of internal trade.• Appreciate the services of wholesalers and retailers.
Types of retail-trade-Itinerant and small scale fixed shops retailers	<ul style="list-style-type: none">• Explain the different types of retail trade.
Large scale retailers-Departmental stores, chain stores – concept	<ul style="list-style-type: none">• Highlight the distinctive features of departmental stores, chain stores and mail order business.
GST (Goods and Services Tax): Concept and key-features	<ul style="list-style-type: none">• Understand the concept of GST

Unit 10: International Trade

International trade: concept and benefits	<ul style="list-style-type: none">• Understand the concept of international trade.• Describe the scope of international trade to the nation and business firms.
Export trade – Meaning and procedure	<ul style="list-style-type: none">• State the meaning and objectives of export trade.• Explain the important steps involved in executing export trade.
Import Trade - Meaning and procedure	<ul style="list-style-type: none">• State the meaning and objectives

	<p>of import trade.</p> <ul style="list-style-type: none"> • Discuss the important steps involved in executing import trade.
Documents involved in International Trade; indent, letter of credit, shipping order, shipping bills, mate's receipt (DA/DP)	<ul style="list-style-type: none"> • Develop an understanding of the various documents used in international trade. • Identify the specimen of the various documents used in international trade. • Highlight the importance of the documents needed in connection with international trade transactions
World Trade Organization (WTO) meaning and objectives	<ul style="list-style-type: none"> • State the meaning of World Trade Organization. • Discuss the objectives of World Trade Organization in promoting international trade.

Unit 11: Project Work

As per CBSE guidelines.

Suggested Question Paper Design
Business Studies (Subject Code 054)
Class XI (2025-26)
March 2026 Examination

Marks: 80

Duration: 3 hrs.

SN	Typology of Questions	Marks	Percentage
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way	24	30%
3	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	Total	80	100%

Business Studies (Subject Code 054)
CLASS–XII (2025-26)

Theory: 80 Marks
Project: 20 Marks

3 Hours

Units		Marks
Part A	Principles and Functions of Management	
1.	Nature and Significance of Management	16
2	Principles of Management	
3	Business Environment	
4	Planning	14
5	Organising	
6	Staffing	20
7	Directing	
8	Controlling	
	Total	50
Part B	Business Finance and Marketing	
9	Financial Management	15
10	Financial Markets	
11	Marketing Management	15
12	Consumer Protection	
	Total	30
Part C	Project Work (One)	20

Part A: Principles and Functions of Management

Unit 1: Nature and Significance of Management

Concept	After going through this unit, the student/ learner would be able to:
Management - concept, objectives, and importance	<ul style="list-style-type: none"> Understand the concept of management. Explain the meaning of 'Effectiveness and Efficiency. Discuss the objectives of management. Describe the importance of management.
Management as Science, Art and Profession	<ul style="list-style-type: none"> Examine the nature of management as a science, art and profession.
Levels of Management	<ul style="list-style-type: none"> Understand the role of top, middle and lower levels of management
Management functions-planning, organizing, staffing, directing and controlling	<ul style="list-style-type: none"> Explain the functions of management
Coordination- concept and importance	<ul style="list-style-type: none"> Discuss the concept and

	<p>characteristics of coordination.</p> <ul style="list-style-type: none"> • Explain the importance of coordination.
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Unit 2: Principles of Management

Principles of Management - concept and significance	<ul style="list-style-type: none"> • Understand the concept of principles of management. • Explain the significance of management principles.
Fayol's principles of management	<ul style="list-style-type: none"> • Discuss the principles of management developed by Fayol.
Taylor's Scientific management - principles and techniques	<ul style="list-style-type: none"> • Explain the principles and techniques of 'Scientific Management'. • Compare the contributions of Fayol and Taylor.

Unit 3: Business Environment

Business Environment- concept and importance	<ul style="list-style-type: none"> • Understand the concept of 'Business Environment'. • Describe the importance of business environment
Dimensions of Business Environment - Economic, Social, Technological, Political and Legal	<ul style="list-style-type: none"> • Describe the various dimensions of 'Business Environment'. • Understand the concept of demonetization
Demonetization - concept and features	

Unit 4: Planning

Planning: Concept, importance and limitation	<ul style="list-style-type: none"> • Understand the concept of planning. • Describe the importance of planning. • Understand the limitations of planning.
Planning process	<ul style="list-style-type: none"> • Describe the steps in the process of planning.
Single use and Standing Plans. Objectives, Strategy, Policy, Procedure, Method, Rule, Budget and Programme	<ul style="list-style-type: none"> • Develop an understanding of single use and standing plans • Describe objectives, policies, strategy, procedure, method, rule, budget and programme as types of plans.

Unit 5: Organising

Organising: Concept and importance	<ul style="list-style-type: none"> • Understand the concept of organizing as a structure and as a
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	process. <ul style="list-style-type: none"> • Explain the importance of organising.
Organising Process	<ul style="list-style-type: none"> • Describe the steps in the process of organizing
Structure of organisation- functional and divisional concept. Formal and informal organization - concept	<ul style="list-style-type: none"> • Describe functional and divisional structures of organisation. • Explain the advantages, disadvantages and suitability of functional and divisional structure. • Understand the concept of formal and informal organisation. • Discuss the advantages, disadvantages of formal and informal organisation.
Delegation: concept, elements and importance	<ul style="list-style-type: none"> • Understand the concept of delegation. • Describe the elements of delegation. • Appreciate the importance of Delegation.
Decentralization: concept and importance	<ul style="list-style-type: none"> • Understand the concept of decentralisation. • Explain the importance of decentralisation. • Differentiate between delegation and decentralisation.

Unit 6: Staffing

Staffing: Concept and importance of staffing	<ul style="list-style-type: none"> • Understand the concept of staffing. • Explain the importance of staffing
Staffing as a part of Human Resource Management concept	<ul style="list-style-type: none"> • Understand the specialized duties and activities performed by Human Resource Management
Staffing process	<ul style="list-style-type: none"> • Describe the steps in the process of staffing
Recruitment process	<ul style="list-style-type: none"> • Understand the meaning of recruitment. • Discuss the sources of recruitment. • Explain the merits and demerits of internal and external sources of recruitment.
Selection – process	<ul style="list-style-type: none"> • Understand the meaning of selection. • Describe the steps involved in the process of selection.
Training and Development - Concept and importance, Methods of training - on the	<ul style="list-style-type: none"> • Understand the concept of training and development.

job and off the job - vestibule training, apprenticeship training and internship training	<ul style="list-style-type: none"> • Appreciate the importance of training to the organisation and to the employees. • Discuss the meaning of induction training, vestibule training, apprenticeship training and internship training. • Differentiate between training and development. • Discuss on the job and off the job methods of training.
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Unit 7: Directing

Directing: Concept and importance	<ul style="list-style-type: none"> • Describe the concept of directing. • Discuss the importance of directing
Elements of Directing	<ul style="list-style-type: none"> • Describe the various elements of directing
Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives	<ul style="list-style-type: none"> • Understand the concept of motivation. • Develop an understanding of Maslow's Hierarchy of needs. • Discuss the various financial and non-financial incentives.
Leadership - concept, styles - authoritative, democratic and laissez faire	<ul style="list-style-type: none"> • Understand the concept of leadership. • Understand the various styles of leadership.
Communication - concept, formal and informal communication; barriers to effective communication, how to overcome the barriers?	<ul style="list-style-type: none"> • Understand the concept of communication • Understand the elements of the communication process. • Discuss the concept of formal and informal communication. • Discuss the various barriers to effective communication. • Suggest measures to overcome barriers to communication.

Unit 8: Controlling

Controlling - Concept and importance	<ul style="list-style-type: none"> • Understand the concept of controlling. • Explain the importance of controlling.
Relationship between planning and controlling	<ul style="list-style-type: none"> • Describe the relationship between planning and controlling
Steps in process of control	<ul style="list-style-type: none"> • Discuss the steps in the process of controlling.

Part B: Business Finance and Marketing

Unit 9: Financial Management

Financial Management: Concept, role and objectives	<ul style="list-style-type: none">• Understand the concept of financial management.• Explain the role of financial management in an organisation.• Discuss the objectives of financial management
Financial decisions: investment, financing and dividend - Meaning and factors affecting	<ul style="list-style-type: none">• Discuss the three financial decisions and the factors affecting them.
Financial Planning - concept and importance	<ul style="list-style-type: none">• Describe the concept of financial planning and its objectives.• Explain the importance of financial planning.
Capital Structure – concept and factors affecting capital structure	<ul style="list-style-type: none">• Understand the concept of capital structure.• Describe the factors determining the choice of an appropriate capital structure of a company.
Fixed and Working Capital - Concept and factors affecting their requirements	<ul style="list-style-type: none">• Understand the concept of fixed and working capital.• Describe the factors determining the requirements of fixed and working capital.

Unit 10: Financial Markets

Financial Markets: Concept	<ul style="list-style-type: none">• Understand the concept of financial market.
Money Market: Concept	<ul style="list-style-type: none">• Understand the concept of money market.
Capital market and its types (primary and secondary)	<ul style="list-style-type: none">• Discuss the concept of capital market.• Explain primary and secondary markets as types of capital market.• Differentiate between capital market and money market.• Distinguish between primary and secondary markets.
Stock Exchange - Functions and trading procedure	<ul style="list-style-type: none">• Give the meaning of a stock exchange.• Explain the functions of a stock exchange.• Discuss the trading procedure in a stock exchange.

	<ul style="list-style-type: none"> • Give the meaning of depository services and demat account as used in the trading procedure of securities.
Securities and Exchange Board of India (SEBI) - objectives and functions	<ul style="list-style-type: none"> • State the objectives of SEBI. • Explain the functions of SEBI.

Unit 11: Marketing

Marketing – Concept, functions and philosophies	<ul style="list-style-type: none"> • Understand the concept of marketing. • Explain the features of marketing. • Discuss the functions of marketing. • Explain the marketing philosophies.
Marketing Mix – Concept and elements	<ul style="list-style-type: none"> • Understand the concept of marketing mix. • Describe the elements of marketing mix.
Product – branding, labelling and packaging – Concept	<ul style="list-style-type: none"> • Understand the concept of product as an element of marketing mix. • Understand the concept of branding, labelling and packaging.
Price - Concept, Factors determining price	<ul style="list-style-type: none"> • Understand the concept of price as an element of marketing mix. • Describe the factors determining price of a product.
Physical Distribution – concept, components and channels of distribution	<ul style="list-style-type: none"> • Understand the concept of physical distribution. • Explain the components of physical distribution. • Describe the various channels of distribution.
Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations	<ul style="list-style-type: none"> • Understand the concept of promotion as an element of marketing mix. • Describe the elements of promotion mix. • Understand the concept of advertising. • Understand the concept of sales promotion. • Discuss the concept of public relations.

Unit 12: Consumer Protection

Consumer Protection: Concept and importance	<ul style="list-style-type: none"> • Understand the concept of consumer protection. • Describe the importance of
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	<p>consumer protection.</p> <ul style="list-style-type: none"> • Discuss the scope of Consumer Protection Act, 2019
<p>The Consumer Protection Act, 2019: Source: http://egazette.nic.in/WriteReadData/2019/210422.pdf</p> <p>Meaning of consumer Rights and responsibilities of consumers Who can file a complaint? Redressal machinery Remedies available</p>	<ul style="list-style-type: none"> • Understand the concept of a consumer according to the Consumer Protection Act, 2019. • Explain the consumer rights • Understand the responsibilities of consumers • Understand who can file a complaint and against whom? • Discuss the legal redressal machinery under Consumer Protection Act, 2019. • Examine the remedies available to the consumer under Consumer Protection Act, 2019.
<p>Consumer awareness - Role of consumer organizations and Non-Governmental Organizations (NGOs)</p>	<ul style="list-style-type: none"> • Describe the role of consumer organizations and NGOs in protecting consumers' interests.

Unit 13: Project Work

PROJECT WORK IN BUSINESS STUDIES FOR CLASS XI AND XII

Introduction

The course in Business Studies is introduced at Senior School level to provide students with a sound understanding of the principles and practices bearing in business (trade and industry) as well as their relationship with the society. Business is a dynamic process that brings together technology, natural resources and human initiative in a constantly changing global environment. With the purpose to help them understand the framework within which a business operates, and its interaction with the social, economic, technological and legal environment, the CBSE has introduced Project Work in the Business Studies Syllabus for Classes XI and XII. The projects have been designed to allow students to appreciate that business is an integral component of society and help them develop an understanding of the social and ethical issues concerning them.

The project work also aims to empower the teacher to relate all the concepts with what is happening around the world and the student's surroundings, making them appear more clear and contextual. This will enable the student to enjoy studies and use his free time effectively in observing what's happening around.

By means of Project Work the students are exposed to life beyond textbooks giving them opportunities to refer materials, gather information, analyze it further to obtain relevant information and decide what matter to keep.

Objectives

After doing the Project Work in Business Studies, the students will be able to do the following:

- develop a practical approach by using modern technologies in the field of business and management;
- get an opportunity for exposure to the operational environment in the field of business management and related services;
- inculcate important skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions
- get involved in the process of research work; demonstrate his or her capabilities while working independently and
- make studies an enjoyable experience to cherish.

CLASS XI: GUIDELINES FOR TEACHERS

This section provides some basic guidelines for the teachers to launch the projects in Business Studies. It is very necessary to interact, support, guide, facilitate and encourage students while assigning projects to them.

The teachers must ensure that the project work assigned to the students whether individually or in group are discussed at different stages right from assignment to drafts review and finalization. Students should be facilitated in terms of providing relevant

materials or suggesting websites, or obtaining required permissions from business houses, malls etc for their project. The periods assigned to the Project Work should be suitably spaced throughout the academic session. The teachers MUST ensure that the students actually go through the rigors and enjoy the process of doing the project rather than depending on any readymade material available commercially.

The following steps might be followed:

1. Students must take any one topic during the academic session of Class XI.
2. The project may be done in a group or individually.
3. The topic should be assigned after discussion with the students in the class and should then be discussed at every stage of submission of the draft/final project work.
4. The teacher should play the role of a facilitator and should closely supervise the process of project completion.
5. The teachers must ensure that the student's self esteem should go up, and he /she should be able to enjoy this process.
6. The project work for each term should culminate in the form of Power Point Presentation/Exhibition/ Skit before the entire class. This will help in developing ICT and communication skills among them.

The teacher should help students to identify any one project from the given topics.

I. Project One: Field Visit

The objective of introducing this project among the students is to give a first hand experience to them regarding the different types of business units operating in their surroundings, to observe their features and activities and relate them to the theoretical knowledge given in their text books. The students should select a place of field visit from the following: – (Add more as per local area availability.)

1. Visit to a Handicraft unit.
2. Visit to an Industry.
3. Visit to a Whole sale market (vegetables, fruits, flowers, grains, garments, etc.)
4. Visit to a Departmental store.
5. Visit to a Mall.

The following points should be kept in mind while preparing this visit.

1. Select a suitable day free from rush/crowd with lean business hours.
2. The teacher must visit the place first and check out on logistics. It's better to seek permission from the concerned business- incharge.
3. Visit to be discussed with the students in advance. They should be encouraged to prepare a worksheet containing points of observation and reporting.
4. Students may carry their cameras (at their own risk) with prior permission for collecting evidence of their observations.

1. Visit to a Handicraft Unit

The purpose of visiting a Handicraft unit is to understand nature and scope of its business, stake holders involved and other aspects as outlined below

- a) The raw material and the processes used in the business: People /parties/firms from which they obtain their raw material.
- b) The market, the buyers, the middlemen, and the areas covered. c) The countries to which exports are made.
- d) Mode of payment to workers, suppliers etc.
- e) Working conditions.
- f) Modernization of the process over a period of time.
- g) Facilities, security and training for the staff and workers.
- h) Subsidies available/ availed.
- i) Any other aspect that the teachers deem fit.

2. Visit to an Industry.

The students are required to observe the following:

- a) Nature of the business organisation.
- b) Determinants for location of business unit.
- c) Form of business enterprise: Sole Proprietorship, Partnership, Undivided Hindu Family, Joint Stock Company (a Multinational Company).
- d) Different stages of production/process
- e) Auxiliaries involved in the process.
- f) Workers employed, method of wage payment, training programmes and facilities available.
- g) Social responsibilities discharged towards workers, investors, society, environment and government.
- h) Levels of management.
- i) Code of conduct for employers and employees.
- j) Capital structure employed- borrowed v/s owned.
- k) Quality control, recycling of defective goods.
- l) Subsidies available/availed.
- m) Safety Measures employed.
- n) Working conditions for labour in observation of Labour Laws.
- o) Storage of raw material and finished goods.
- p) Transport management for employees, raw material and finished goods.
- q) Functioning of various departments and coordination among them (Production, Human Resource, Finance and Marketing)
- r) Waste Management.
- s) Any other observation.

3. Visit to a whole sale market: vegetables/fruits/flowers/grains/garments etc.

The students are required to observe the following:

- a) Sources of merchandise.
- b) Local market practices.
- c) Any linked up businesses like transporters, packagers, money lenders, agents, etc.
- d) Nature of the goods dealt in.
- e) Types of buyers and sellers.
- f) Mode of the goods dispersed, minimum quantity sold, types of packaging employed.
- g) Factors determining the price fluctuations.

- h) Seasonal factors (if any) affecting the business.
- i) Weekly/ monthly non-working days.
- j) Strikes, if any- causes thereof.
- k) Mode of payments.
- l) Wastage and disposal of dead stock.
- m) Nature of price fluctuations, reason thereof.
- n) Warehousing facilities available\availed.
- o) Any other aspect.

4. Visit to a Departmental store

The students are required to observe the following:

- a) Different departments and their lay out.
- b) Nature of products offered for sale.
- c) Display of fresh arrivals.
- d) Promotional campaigns.
- e) Spaces and advertisements.
- f) Assistance by Sales Personnel.
- g) Billing counter at store – Cash, Credit Card/ Debit Card, swipe facility. Added attractions and facilities at the counter.
- h) Additional facilities offered to customers
- i) Any other relevant aspect.

5. Visit to a Mall.

The students are required to observe the following:

- a) Number of floors, shops occupied and unoccupied.
- b) Nature of shops, their ownership status
- c) Nature of goods dealt in: local brands, international brands,
- d) Service business shops- Spas, gym, saloons etc.
- e) Rented spaces, owned spaces,
- f) Different types of promotional schemes.
- g) Most visited shops.
- h) Special attractions of the Mall- Food court, Gaming zone or Cinema etc.
- i) Innovative facilities.
- j) Parking facilities. Teachers may add more to the list.

II. Project Two: Case Study on a Product

- a) Take a product having seasonal growth and regular demand with which students can relate. For example,
 - Apples from Himachal Pradesh, Kashmir.
 - Oranges from Nagpur,
 - Mangoes from Maharashtra/U.P./Bihar/Andhra Pradesh etc.
 - Strawberries from Panchgani,
 - Aloe vera from Rajasthan,
 - Walnuts/almonds from Kashmir,
 - Jackfruit from South,
 - Guavas from Allahabad,

- Pineapples from North East India,
- Tea from Assam,
- Orchids from Sikkim and Meghalaya,
- Pottery of Manipur,
- Fishes from coastal areas.

Students may develop a Case Study on the following lines:

- (i) Research for change in price of the product. For example, apples in Himachal Pradesh during plucking and non plucking season.
- (ii) Effect on prices in the absence of effective transport system.
- (iii) Effect on prices in the absence of suitable warehouse facilities.
- (iv) Duties performed by the warehouses.
- (v) Demand and supply situation of the product during harvesting season, prices near the place of origin and away.

Students may be motivated to find out the importance of producing and selling these products and their processed items along with the roles of Transport, Warehousing, Advertising, Banking, Insurance, Packaging, Wholesale selling, Retailing, Co-operative farming, Co-operative marketing etc.

The teacher may develop the points for other projects on similar lines for students to work on.

The teacher may assign this project as 'group' project and may give different products to different groups. It could conclude in the form of an exhibition.

III. Project Three: Aids to Trade

Taking any one AID TO TRADE, for example Insurance and gathering information on following aspects

1. History of Insurance Lloyd's contribution.
2. Development of regulatory Mechanism.
3. Insurance Companies in India
4. Principles of Insurance.
5. Types of Insurance. Importance of insurance to the businessmen.
6. Benefits of crop, orchards, animal and poultry insurance to the farmers.
7. Terminologies used (premium, face value, market value, maturity value, surrender value) and their meanings.
8. Anecdotes and interesting cases of insurance. Reference of films depicting people committing fraudulent acts with insurance companies.
9. Careers in Insurance.

Teachers to develop such aspects for other aids to trade.

IV. Project Four: Import /Export Procedure

Any one from the following

1. Import /Export procedure

The students should identify a product of their city/country which is imported /exported. They are required to find the details of the actual import/export procedure. They may take help from the Chambers of Commerce, Banker, existing Importers/Exporters, etc.

They should find details of the procedure and link it with their Text knowledge.

The specimens of documents collected should be pasted in the Project file with brief description of each. They may also visit railway godowns/dockyards/ transport agencies and may collect pictures of the same.

Presentation and submission of project report.

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total project will be in a file format, consisting of the recordings of the value of shares and the graphs.
2. The project will be handwritten.
3. The project will be presented in a neat folder.
4. The project report will be developed in the following sequence-
 - ☐ Cover page should project the title, student information, school and year.
 - ☐ List of contents.
 - ☐ Acknowledgements and preface (acknowledging the institution, the news papers read, T.V. channels viewed, places visited and persons who have helped).
 - ☐ Introduction.
 - ☐ Topic with suitable heading.
 - ☐ Planning and activities done during the project, if any.
 - ☐ Observations and findings while conducting the project.
 - ☐ News paper clippings to reflect the changes of share prices.
 - ☐ Conclusions (summarised suggestions or findings, future scope of study).
 - ☐ Appendix (if needed).
 - ☐ Teachers report.
 - ☐ Teachers will initial preface page.
 - ☐ At the completion of the evaluation of the project, it will be punched in the centre so that the report cannot be reused but is available for reference only.
 - ☐ The projects will be returned after evaluation. The school may keep the best projects.

V. Project Five: A visit to any State Emporium (other than your school state).

The purpose of this project is that it leads to -

- ☐ Development of deeper understanding of the diversity of products in the states like Assam, Tripura, Nagaland, Mizoram, Manipur, Meghalaya, Sikkim, Arunachal Pradesh, Jammu and Kashmir, Kerala, Chhatisgarh, Telangana, Andhra Pradesh and other states of the country.
- ☐ Sensitization and orientation of students about other states, their trade, business and commerce,
- ☐ Understanding the cultural and socio-economic aspects of the state by the students,

- ☐ Developing the understanding of role of folk art, artisanship and craftsmanship of the state in its growth and economic development
- ☐ Understanding the role of gifts of nature and natural produce in the development of trade, business and commerce
- ☐ Understanding the role of vocational skills and abilities on the livelihood of artisans/craftsman
- ☐ Understanding of entrepreneurial skills and abilities of the artisans/craftsman
- ☐ Understanding of the unemployment problem of the state and role of art and craft of the state in generating employment opportunities
- ☐ Value aspect -
 - ☐ Sense of gratitude - by appreciating the contributions made by others in the betterment of our lives
 - ☐ Appreciating the dignity of work
 - ☐ Sensitivity towards social, cultural, ethnical and religious differences Benefits of social harmony and peace
 - ☐ Understanding and appreciating the unity in diversity in India
 - ☐ Appreciating differences in race, skin colour, languages, religion, habits, festivals, clothing coexistence

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. Nature of the business organisation (emporium)
2. Determinants for location of the concerned emporium
3. Is the space rented or owned
4. Nature of the goods dealt in
5. Sources of merchandise of the emporium
6. Role of co-operative societies in the manufacturing and/or marketing of the merchandise
7. Role of gifts of nature or natural produce in the development of goods/merchandise
8. Types of buyers and sellers
9. Modes of goods dispersed, minimum quantity sold and type of carrying bag or package used for delivery of the products sold
10. Factors determining the pricing at the emporium
11. Comparison between the prices of goods available at the emporium with the prices in the open market. Also highlight probable causes of variations if any.
12. Kind of raw material available naturally, used in making the products
13. The technique used in making the products i.e., hand made or machine made
14. Has the child labour being used in making the products sold at the emporium
15. Are the products eco-friendly, in terms of manufacturing, disposal and packing
16. Seasonal factors if any affecting the business of the emporium
17. Weekly/ Monthly non-working days
18. Mode of billing and payments - Cash, Credit Card/ Debit Card, Swipe facility.
19. Does the emporium sell its merchandise in installment / deferred payment basis
20. Do they provide home delivery and after sales services.
21. Different types of promotional campaigns / schemes
22. Assistance by Sales Personnel
23. Export orientation of this emporium and procedure used

24. Policies related to damaged/ returned goods
25. Any government facility available to the emporium
26. Warehousing facilities available / availed
27. Impact of tourism on the business of emporium
28. Additional facility offered to customers
29. Any Corporate Social Responsibility (CSR) assumed by the emporium
30. Contribution made by the emporium to its locality

ASSESSMENT

The marks will be allocated on the following heads.

1	Initiative, cooperativeness and participation	2 Mark
2	Creativity in presentation	2 Mark
3	Content, observation and research work	4 Marks
4	Analysis of situations	4 Marks
5	Viva	8 Marks
	Total	20 Marks

CLASS XII: GUIDELINES FOR TEACHERS

Students are supposed to select one unit out of four and are required to make only **ONE project** from the selected unit. (Consist of one project of 20 marks)

1. Help students to select any ONE Topic for the entire year.
2. The topic should be assigned after discussion with the students in the class and should then be discussed at every stage of the submission of the project.

The teacher should play the role of a facilitator and should closely supervise the process of project completion. The teachers must ensure that the project work assigned to the students whether individually or in group are discussed at different stages right from assignment to drafts review and finalization. Students should be facilitated in terms of providing relevant materials or suggesting websites, or obtaining required permissions from business houses, malls etc for their project. The periods assigned to the Project Work should be suitably spaced throughout the academic session. The teachers **MUST** ensure that the student actually go through the rigors and enjoy the process of doing the project rather than depending on any readymade material available outside.

3. The students must make a presentation of the project before the class.
4. The teachers must ensure that the student's self-esteem and creativity is enhanced and both the teacher and the student enjoy this process.
5. The teachers should feel pride in the fact that they have explored the different dimensions of the project in an innovative way and their students have put in genuine work.

I. Project One: Elements of Business Environment

The teachers should help the students in selecting any one element of the following:

1. Changes witnessed over the last few years on mode of packaging and its economic impact. The teacher may guide the students to identify the following changes:

- a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for above changes.
- b) Milk being supplied in glass bottles, later in plastic bags and now in tetra-pack and through vending machines.
- c) Plastic furniture [doors and stools] gaining preference over wooden furniture.
- d) The origin of cardboard and the various stages of changes and growth.
- e) Brown paper bags packing to recycled paper bags to plastic bags and cloth bags.
- f) Re use of packaging [bottles, jars and tins] to attract customers for their products.
- g) The concept of pyramid packaging for milk.
- h) Cost being borne by the consumer/manufacturer.
- i) Packaging used as means of advertisements.

2. The reasons behind changes in the following:

Coca – Cola and Fanta in the seventies to Thums up and Campa Cola in the eighties to Pepsi and Coke in nineties.

The teacher may guide the students to the times when India sold Coca Cola and Fanta which were being manufactured in India by the foreign companies.

The students may be asked to enquire about

- a) Reasons of stopping the manufacturing of the above mentioned drinks in India THEN.
- b) The introduction of Thums up and Campa cola range.
- c) Re entry of Coke and introduction of Pepsi in the Indian market.
- d) Factors responsible for the change.
- e) Other linkages with the above.
- f) Leading brands and the company having the highest market share.
- g) Different local brands venturing in the Indian market.
- h) The rating of the above brands in the market.
- i) The survival and reasons of failure in competition with the international brands.
- j) Other observations made by the students

The teacher may develop the following on the above lines

3. Changing role of the women in the past 25 years relating to joint families, nuclear families, women as a bread earner of the family, changes in the requirement trend of mixers, washing machines, micro wave and standard of living.

4. The changes in the pattern of import and export of different Products.

5. The trend in the changing interest rates and their effect on savings.

6. A study on child labour laws, its implementation and consequences.

7. The state of 'anti plastic campaign,' the law, its effects and implementation.

8. The laws of mining /setting up of industries, rules and regulations, licences required for running that business.

9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc)

10. What has the effect of change in environment on the types of goods and services?

The students can take examples like:

- a) Washing machines, micro waves, mixers and grinder.
- b) Need for crèche, day care centre for young and old.
- c) Ready to eat food, eating food outside, and tiffin centres.

11. Change in the man-machine ratio with technological advances resulting in change of cost structure.
12. Effect of changes in technological environment on the behaviour of employee.

II. Project Two: Principles of Management

The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol.

Fayol's principles

1. Division of work.
2. Unity of command.
3. Unity of direction.
4. Scalar chain
5. Espirit de corps
6. Fair remuneration to all.
7. Order.
8. Equity.
9. Discipline
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure.
14. Authority and Responsibility

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management.

1. Functional foremanship.
2. Standardisation and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan.

Tips to teacher

- (i) The teacher may organize this visit.
- (ii) The teacher should facilitate the students to identify any unit of their choice and guide them to identify the principles that are being followed.
- (iii) Similarly they should guide the students to identify the techniques of scientific management implemented in the organisation.
- (iv) It may be done as a group activity.

(v) The observations could be on the basis of

- ☐ The different stages of division of work resulting to specialisation.
- ☐ Following instructions and accountability of subordinates to higher authorities.
- ☐ Visibility of order and equity in the unit.
- ☐ Balance of authority and responsibility.
- ☐ Communication levels and pattern in the organisation.
- ☐ Methods and techniques followed by the organisation for unity of direction and coordination amongst all.
- ☐ Methods of wage payments followed. The arrangements of fatigue study.
- ☐ Derivation of time study.
- ☐ Derivation and advantages of method study.
- ☐ Organisational chart of functional foremanship.
- ☐ Any other identified in the organisation

vi. It is advised that students should be motivated to pick up different areas of visit. As presentations of different areas in the class would help in better understanding to the other students.

vii. The students may be encouraged to develop worksheets. Teachers should help students to prepare observation tools to be used for undertaking the project.

Examples; worksheets, questionnaire, interviews and organisational chart etc.

III. Project Three: Stock Exchange

The purpose of this project is to teach school students the values of investing and utilising the stock market. This project also teaches important lessons about the economy, mathematics and financial responsibility.

The basis of this project is to learn about the stock market while investing a specified amount of fake money in certain stocks. Students then study the results and buy and sell as they see fit.

This project will also guide the students and provide them with the supplies necessary to successfully monitor stock market trends and will teach students how to calculate profit and loss on stock.

The project work will enable the students to:

- ☐ understand the topics like sources of business finance and capital market
- ☐ understand the concepts used in stock exchange
- ☐ inculcate the habit of watching business channels, reading business journals/newspapers and seeking information from their elders.

The students are expected to:

- a) Develop a brief report on History of Stock Exchanges in India. (your country)
- b) Prepare a list of at least 25 companies listed on a Stock Exchange.
- c) To make an imaginary portfolio totalling a sum of Rs. 50,000 equally in any of the 5 companies of their choice listed above over a period of twenty working days.

The students may be required to report the prices of the stocks on daily basis and present it diagrammatically on the graph paper.

- ☐ They will understand the weekly holidays and the holidays under the Negotiable Instruments Act.

They will also come across with terms like closing prices, opening prices, etc.

- During this period of recording students are supposed to distinctively record the daily and starting and closing prices of the week other days under the negotiable instrument act so that they acquire knowledge about closing and opening prices.
- The students may conclude by identifying the causes in the fluctuations of prices. Normally it would be related to the front page news of the a business journal, for example,
 - Change of seasons.
 - Festivals.
 - Spread of epidemic.
 - Strikes and accidents
 - Natural and human disasters.
 - Political environment.
 - Lack of faith in the government policies.
 - Impact of changes in government policies for specific industry.
 - International events.
 - Contract and treaties at the international scene.
 - Relations with the neighbouring countries.
 - Crisis in developed countries, etc.

The students are expected to find the value of their investments and accordingly rearrange their portfolio. The project work should cover the following aspects;

1. Graphical presentation of the share prices of different companies on different dates.
2. Change in market value of shares due to change of seasons, festivals, natural and human disasters.
3. Change in market value of shares due to change in political environment/ policies of various countries/crisis in developed countries or any other reasons
4. Identify the top ten companies out of the 25 selected on the basis of their market value of shares.

It does not matter if they have made profits or losses.

IV. Project Four: Marketing

- | | |
|-------------------------|---------------------|
| 1. Adhesives | 20. Cutlery |
| 2. Air conditioners | 21. Cycle |
| 3. Baby diapers | 22. DTH |
| 4. Bathing Soap | 23. Eraser |
| 5. Bathroom cleaner | 24. e-wash |
| 6. Bike | 25. Fairness cream |
| 7. Blanket | 26. Fans |
| 8. Body Spray | 27. Fruit candy |
| 9. Bread | 28. Furniture |
| 10. Breakfast cereal | 29. Hair Dye |
| 11. Butter | 30. Hair Oil |
| 12. Camera | 31. Infant dress |
| 13. Car | 32. Inverter |
| 14. Cheese spreads | 33. Jams |
| 15. Chocolate | 34. Jeans |
| 16. Coffee | 35. Jewellery |
| 17. Cosmetology product | 36. Kurti |
| 18. Crayons | 37. Ladies bag |
| 19. Crockery | 38. Ladies footwear |

39. Learning Toys
40. Lipstick
41. Microwave oven
42. Mixers
43. Mobile
44. Moisturizer
45. Music player
46. Nail polish
47. Newspaper
48. Noodles
49. Pen
50. Pen drive
51. Pencil
52. Pickles
53. Razor
54. Ready Soups
55. Refrigerator
56. RO system
57. Roasted snacks
58. Salt

59. Sarees
60. Sauces/ Ketchup
61. Shampoo
62. Shaving cream
63. Shoe polish
64. Shoes
65. Squashes
66. Suitcase/ airbag
67. Sunglasses
68. Tea
69. Tiffin Wallah
70. Toothpaste
71. Wallet
72. Washing detergent
73. Washing machine
74. Washing powder
75. Water bottle
76. Water storage tank
77. Wipes

Any more as suggested by the teacher.

The teacher must ensure that the identified product should not be items whose consumption/use is discouraged by the society and government like alcohol products/pan masala and tobacco products, etc.

Identify one product/service from the above which the students may like to manufacture/provide [pre-assumption].

Now the students are required to make a project on the identified product/service keeping in mind the following:

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors Unique Selling Proposition.[U.S.P.]?
5. Does your product have any range give details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label' of your product.
9. Draw a logo for your product.
10. Draft a tag line.
11. What is the selling price of your competitor's product?
 - (i) Selling price to consumer
 - (ii) Selling price to retailer
 - (iii) Selling price to wholesaler

What is the profit margin in percentage to the

- ☐ Manufacturer.
- ☐ Wholesaler.
- ☐ Retailer.

12. How will your product be packaged?
 13. Which channel of distribution are you going to use? Give reasons for selection?
 14. Decisions related to warehousing, state reasons.
 15. What is going to be your selling price?
 - (i) To consumer
 - (ii) To retailer
 - (iii) To wholesaler
 16. List 5 ways of promoting your product.
 17. Any schemes for
 - (i) The wholesaler
 - (ii) The retailer
 - (iii) The consumer
 18. What is going to be your 'U.S.P'?
 19. What means of transport you will use and why?
 20. Draft a social message for your label.
 21. What cost effective techniques will you follow for your product.
 22. What cost effective techniques will you follow for your promotion plan.
- At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.
- ☐ Product
 - ☐ Place
 - ☐ Price
 - ☐ Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in.
2. Brand name and the product.
3. Range of the product.
4. Identification mark or logo.
5. Tagline.
6. Labeling and packaging.
7. Price of the product and basis of price fixation.
8. Selected channels of distribution and reasons thereof.
9. Decisions related to transportation and warehousing. State reasons.
10. Promotional techniques used and starting reasons for deciding the particular technique.
11. Grading and standardization.

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence-
 - ☐ Cover page should include the title of the Project, student information, school and year.

- ☐ List of contents.
- ☐ Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
- ☐ Introduction.
- ☐ Topic with suitable heading.
- ☐ Planning and activities done during the project, if any.
- ☐ Observations and findings of the visit.
- ☐ Conclusions (summarized suggestions or findings, future scope of study).
- ☐ Photographs (if any).
- ☐ Appendix
- ☐ Teacher's observation.
- ☐ Signatures of the teachers.
- ☐ At the completion of the evaluation of the project, it should be punched in the centre so that the report may not be reused but is available for reference only.
- ☐ The project will be returned after evaluation. The school may keep the best projects.

ASSESSMENT

Allocation of Marks = 20 Marks

The marks will be allocated under the following heads:

1	Initiative, cooperativeness and participation	2 Mark
2	Creativity in presentation	2 Mark
3	Content, observation and research work	4 Marks
4	Analysis of situations	4 Marks
5	Viva	8 Marks
	Total	20 Marks

Suggested Question Paper Design
Business Studies (Subject Code 054)
Class XII (2025-26)
March 2026 Examination

Marks: 80

Duration: 3 hrs.

SN	Typology of Questions	Marks	Percentage
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way	24	30%
3	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	Total	80	100%

ECONOMICS (Subject Code 030)

Class XI-XII (2025-26)

Rationale

Economics is one of the social sciences, which has great influence on every human being. As economic life and the economy go through changes, the need to ground education in children's own experience becomes essential. While doing so, it is imperative to provide them opportunities to acquire analytical skills to observe and understand the economic realities.

At senior secondary stage, the learners are in a position to understand abstract ideas, exercise the power of thinking and to develop their own perception. It is at this stage, the learners are exposed to the rigour of the discipline of economics in a systematic way.

The economics courses are introduced in such a way that in the initial stage, the learners are introduced to the economic realities that the nation is facing today along with some basic statistical tools to understand these broader economic realities. In the later stage, the learners are introduced to economics as a theory of abstraction.

The economics courses also contain many projects and activities. These will provide opportunities for the learners to explore various economic issues both from their day-to-day life and also from issues, which are broader and invisible in nature. The academic skills that they learn in these courses would help to develop the projects and activities. The syllabus is also expected to provide opportunities to use information and communication technologies to facilitate their learning process.

Objectives:

- Understanding of some basic economic concepts and development of economic reasoning which the learners can apply in their day-to-day life as citizens, workers and consumers.
- Realisation of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.
- Equipment with basic tools of economics and statistics to analyse economic issues. This is pertinent for even those who may not pursue this course beyond senior secondary stage.
- Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.

ECONOMICS (Subject Code 030)

CLASS – XI (2025-26)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units		Marks
Part A	Statistics for Economics	
	Introduction	15
	Collection, Organisation and Presentation of Data	
	Statistical Tools and Interpretation	25
		40
Part B	Introductory Microeconomics	
	Introduction	04
	Consumer's Equilibrium and Demand	14
	Producer Behaviour and Supply	14
	Forms of Market and Price Determination under perfect competition with simple applications	08
		40
Part C	Project Work	20

Part A: Statistics for Economics

In this course, the learners are expected to acquire skills in collection, organisation and presentation of quantitative and qualitative information pertaining to various simple economic aspects systematically. It also intends to provide some basic statistical tools to analyse, and interpret any economic information and draw appropriate inferences. In this process, the learners are also expected to understand the behaviour of various economic data.

Unit 1: Introduction

What is Economics?

Meaning, scope, functions and importance of statistics in Economics

Unit 2: Collection, Organisation and Presentation of data

Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation.

Organisation of Data: Meaning and types of variables; Frequency Distribution.

Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data:
(i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph).

Unit 3: Statistical Tools and Interpretation

For all the numerical problems and solutions, the appropriate economic interpretation may be attempted. This means, the students need to solve the problems and provide interpretation for the results derived.

Measures of Central Tendency- Arithmetic mean, Median and Mode

Correlation – meaning and properties, scatter diagram; measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation (Non-Repeated Ranks and Repeated Ranks).

Introduction to Index Numbers - meaning, types - Wholesale Price Index, Consumer Price Index and index of industrial production, uses of index numbers; Inflation and Index Numbers, Simple Aggregative Method.

Part B: Introductory Microeconomics

Unit 4: Introduction

Meaning of microeconomics and macroeconomics; positive and normative economics

What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of Production Possibility Frontier and Opportunity Cost.

Unit 5: Consumer's Equilibrium and Demand

Consumer's equilibrium - meaning of Utility, Marginal Utility, Law of Diminishing Marginal Utility, conditions of consumer's equilibrium using marginal utility analysis.

Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium.

Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method and total expenditure method.

Unit 6: Producer Behaviour and Supply

Meaning of Production Function – Short-Run and Long-Run

Total Product, Average Product and Marginal Product.

Returns to a Factor

Cost – Short run costs - Total Cost, Total Fixed Cost, Total Variable Cost; Average Cost; Average Fixed Cost, Average Variable Cost and Marginal Cost - meaning and their relationships.

Revenue – Total Revenue, Average Revenue and Marginal Revenue - meaning and their relationship.

Producer's Equilibrium - meaning and its conditions in terms of Marginal Revenue-Marginal Cost.

Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method.

Unit 7: Perfect Competition - Price Determination and simple applications.

Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. (Short Run Only)

Simple Applications of Demand and Supply: Price ceiling, Price floor.

Part C: Project in Economics

Guidelines as given in Class XII curriculum

Suggested Question Paper Design
Economics (Subject Code 030)
Class XI (2025-26)
March 2026 Examination

Marks: 80

Duration: 3 hrs.

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2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	24	30%
3	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	Total	80	100%

ECONOMICS (Subject Code 030)
CLASS - XII (2025-26)

Theory: 80 Marks
Project: 20 Marks

3 Hours

Units		Marks
Part A	Introductory Macroeconomics	
	National Income and Related Aggregates	10
	Money and Banking	06
	Determination of Income and Employment	12
	Government Budget and the Economy	06
	Balance of Payments	06
		40
Part B	Indian Economic Development	
	Development Experience (1947-90) and Economic Reforms since 1991	12
	Current Challenges facing Indian Economy	20
	Development Experience of India – A Comparison with Neighbours	08
	Theory Paper (40+40 = 80 Marks)	40
Part C	Project Work	20

Part A: Introductory Macroeconomics

Unit 1: National Income and Related Aggregates

What is Macroeconomics?

Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income:

Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP

GDP Deflator, GDP and Welfare

Unit 2: Money and Banking

Money – meaning and functions, supply of money - Currency held by the public and net demand deposits held by commercial banks.

Money creation by the commercial banking system.

Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit through Bank Rate, Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Unit 3: Determination of Income and Employment

Aggregate demand and its components.

Propensity to consume and propensity to save (average and marginal).

Short-run equilibrium output; investment multiplier and its mechanism.

Meaning of full employment and involuntary unemployment.

Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply.

Unit 4: Government Budget and the Economy

Government budget - meaning, objectives and components.

Classification of receipts - revenue receipts and capital receipts;

Classification of expenditure – revenue expenditure and capital expenditure.

Balanced, Surplus and Deficit Budget – measures of government deficit.

Unit 5: Balance of Payments

Balance of payments account - meaning and components;

Balance of payments – Surplus and Deficit

Foreign exchange rate - meaning of fixed and flexible rates and managed floating.

Determination of exchange rate in a free market, Merits and demerits of flexible and fixed exchange rate.

Managed Floating exchange rate system

Part B: Indian Economic Development

Unit 6: Development Experience (1947-90) and Economic Reforms since 1991:

A brief introduction of the state of Indian economy on the eve of independence.

Indian economic system and common goals of Five Year Plans.

Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), industry (IPR 1956; SSI – role & importance) and foreign trade.

Economic Reforms since 1991:

Features and appraisals of liberalisation, globalisation and privatisation (LPG policy);

Concepts of demonetization and GST

Unit 7: Current challenges facing Indian Economy

Human Capital Formation: How people become resource; Role of human capital in economic development; Growth of Education Sector in India

Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming

Employment: Growth and changes in work force participation rate in formal and informal sectors; problems and policies

Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming

Unit 8: Development Experience of India:

A comparison with neighbours

India and Pakistan

India and China

Issues: economic growth, population, sectoral development and other Human Development Indicators

Part C: Project in Economics

Prescribed Books:

1. Statistics for Economics, NCERT
2. Indian Economic Development, NCERT
3. Introductory Microeconomics, NCERT
4. Macroeconomics, NCERT
5. Supplementary Reading Material in Economics, CBSE

Note: The above publications are also available in Hindi Medium.

Suggested Question Paper Design
Economics (Subject Code 030)
Class XII (2025-26)
March 2026 Examination

Marks: 80

Duration: 3 hrs.

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	Total	80	100%

Guidelines for Project Work in Economics (Class XI and XII)

The **objectives** of the project work are to enable learners to:

- probe deeper into theoretical concepts learnt in classes XI and XII
- analyse and evaluate real world economic scenarios using theoretical constructs and arguments
- demonstrate the learning of economic theory
- follow up aspects of economics in which learners have interest
- develop the communication skills to argue logically

The **expectations** of the project work are that:

- learners will complete only **ONE** project in each academic session
- project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably hand-written
- it will be an independent, self-directed piece of study

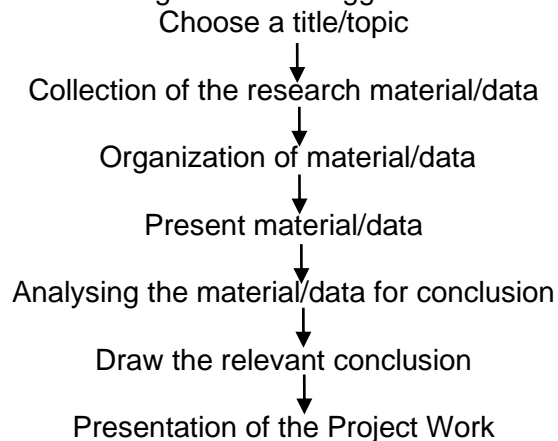
Role of the teacher:

The teacher plays a critical role in developing thinking skills of the learners. A teacher should:

- help each learner select the topic based on recently published extracts from the news media, government policies, RBI bulletin, NITI Aayog reports, IMF/World Bank reports etc., after detailed discussions and deliberations of the topic
- play the role of a facilitator and supervisor to monitor the project work of the learner through periodic discussions
- guide the research work in terms of sources for the relevant data
- educate learner about plagiarism and the importance of quoting the source of the information to ensure authenticity of research work
- prepare the learner for the presentation of the project work
- arrange a presentation of the project file

Scope of the project:

Learners may work upon the following lines as a suggested flow chart:



Expected Checklist:

- Introduction of topic/title
- Identifying the causes, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of economic strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- *Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.*

Mode of presentation/submission of the Project:

At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner. **The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work.** In case of any doubt, authenticity should be checked and verified.

Marking Scheme:

Marks are suggested to be given as –

S. No.	Heading	Marks Allotted
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique	3
4.	Viva-voce	8
	Total	20 Marks

Suggestive List of Projects:

Class XI	
• Effect on PPC due to various government policies	• Invisible Hand (Adam Smith)
• Opportunity Cost as an Economic Tool (taking real life situations)	• Effect of Price Change on a Substitute Good (taking prices from real life visiting local market)
• Effect on Equilibrium Prices in Local Market (taking real life situation or recent news)	• Effect of Price Change on a Complementary Good (taking prices from real life visiting local market)
• Solar Energy, a Cost-Effective Comparison with Conventional Energy Sources	• Bumper Production- Boon or Bane for the Farmer
• Any other newspaper article and its evaluation on basis of economic principles	• Any other topic

Class XII	
• Micro and Small Scale Industries	• Food Supply Channel in India
• Contemporary Employment situation in India	• Disinvestment policy of the government
• Goods and Services Tax Act and its Impact on GDP	• Health Expenditure (of any state)
• Human Development Index	• Inclusive Growth Strategy
• Self-help group	• Trends in Credit availability in India
• Monetary Policy Committee and its functions	• Role of RBI in Control of Credit
• Government Budget & its Components	• Trends in budgetary condition of India
• Exchange Rate determination – Methods and Techniques	• Currency War – reasons and repercussions
• Livestock – Backbone of Rural India	• Alternate fuel – types and importance
• Sarva Shiksha Abhiyan – Cost Ratio Benefits	• Golden Quadrilateral- Cost ratio benefit
• Minimum Support Prices	• Relation between Stock Price Index and Economic Health of a Nation
• Waste Management in India – Need of the hour	• Minimum Wage Rate – Approach and Application
• Digital India- Step towards the future	• Rain Water Harvesting – A solution to water crisis
• Vertical Farming – An alternate way	• Silk Route- Revival of the past
• Make in India – The way ahead	• Bumper Production- Boon or Bane for the farmer
• Rise of Concrete Jungle- Trend Analysis	• Organic Farming – Back to the Nature
• <i>Aatmanirbhar</i> Bharat	• e-Rupee (e- ₹)
• Sri Lanka's Economic Crisis	• Sustainable Development Goals (SDG's)
• Environmental Crisis	• Comparative Study of Economies (Maximum three economies)
• New Education Policy (NEP) 2020: A Promise for a New Education System	• G-20: Inclusive and Action Oriented
• Amrit Kaal: Empowered and Inclusive Economy	• Cashless Economy
• Any other newspaper article and its evaluation on basis of economic principles	• Any other topic

INFORMATICS PRACTICES
Subject Code - 065
Class XI (2025-26)

1. Prerequisite. None

2. Learning Outcomes

At the end of this course, students will be able to:

- Identify the components of computer system.
- Create Python programs using different data types, lists and dictionaries.
- Understand database concepts and Relational Database Management Systems.
- Retrieve and manipulate data in RDBMS using Structured Query Language
- Identify the Emerging trends in the fields of Information Technology.

3. Distribution of Marks and Periods

Unit No	Unit Name	Marks
1	Introduction to computer system	10
2	Introduction to Python	25
3	Database concepts and the Structured Query Language	30
4	Introduction to Emerging Trends	5
	Practical	30
	Total	100

4. Unit Wise syllabus

Unit 1: Introduction to Computer System

Introduction to computer and computing: evolution of computing devices, components of a computer system and their interconnections, Input/output devices.

Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns.

Software: purpose and types – system and application software, generic and specific purpose software.

Unit 2: Introduction to Python

Basics of Python programming, execution modes: - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operator, precedence of operators, data types, mutable and immutable data types, statements, expression evaluation, comments, input and output statements, data type conversion, debugging.

Control Statements: if-else, if-elif-else, while loop, for loop

Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions – len(),list(),append(),insert(), count(),index(),remove(), pop(), reverse(), sort(), min(),max(),sum()

Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions – dict(), len(), keys(), values(), items(), update(), del(), clear()

Introduction to NumPy: Introduction, Creation of NumPy Arrays from List

Unit 3: Database concepts and the Structured Query Language

Database Concepts: Introduction to database concepts and its need, Database Management System.

Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key

Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL, creating a database using MySQL, Data Types

Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER

Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL

Data Manipulation: INSERT, DELETE,UPDATE

Unit 4: Introduction to the Emerging Trends

Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.

Practical Marks Distribution

S.No.	Unit Name	Marks
1	Problem solving using Python programming language	11
2	Creating database using MySQL and performing Queries	7
3	Practical file (minimum of 14 python programs, and 14 SQL queries)	7
4	Viva-Voce	5
	Total	30

5. Suggested Practical List

5.1 Programming in Python

1. To find average and grade for given marks.
2. To find sale price of an item with given cost and discount (%).
3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
4. To calculate Simple and Compound interest.
5. To calculate profit-loss for given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax.
8. To find the largest and smallest numbers in a list.
9. To find the third largest/smallest number in a list.
10. To find the sum of squares of the first 100 natural numbers.
11. To print the first 'n' multiples of given number.
12. To count the number of vowels in user entered string.
13. To print the words starting with an alphabet in a user entered string.
14. To print number of occurrences of a given alphabet in each string.
15. Create a dictionary to store names of states and their capitals.
16. Create a dictionary of students to store names and marks obtained in 5 subjects.
17. To print the highest and lowest values in the dictionary.

5.2 Data Management: SQL Commands

1. To create a database
2. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.

3. To insert the details of at least 10 students in the above table.
4. To display the entire content of table.
5. To display Rno, Name and Marks of those students who are scoring marks more than 50.
6. To display Rno, Name, DOB of those students who are born between '2005- 01-01' and '2005-12-31'.

Suggested material

NCERT Informatics Practices - Text book for class - XI (ISBN- 978-93-5292-148-5)

INFORMATICS PRACTICES
Subject Code - 065
Class XII (2025-26)

1. **Prerequisite:** Informatics Practices – Class XI

2. Learning Outcomes

At the end of this course, students will be able to:

- Create Series, Data frames and apply various operations.
- Visualize data using relevant graphs.
- Design SQL queries using aggregate functions.
- Import/Export data between SQL database and Pandas.
- Learn terminology related to networking and internet.
- Identify internet security issues and configure browser settings.
- Understand the impact of technology on society including gender and disability issues

3. Distribution of Marks and Periods

Unit No	Unit Name	Marks
1	Data Handling using Pandas and Data Visualization	25
2	Database Query using SQL	25
3	Introduction to Computer Networks	10
4	Societal Impacts	10
	Project	-
	Practical	30
	Total	100

4. Unit Wise syllabus

Unit 1: Data Handling using Pandas -I

Introduction to Python libraries- Pandas, Matplotlib;

Data structures in Pandas - Series and Data Frames.

Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Head() and Tail() functions; Selection, Indexing and Slicing.

Data Frames: creation- from dictionary of Series, list of dictionaries, Text/CSV files, display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing;

Importing/Exporting Data between CSV files and Data Frames.

Data Visualization

Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram

Customizing plots: adding label, title, and legend in plots.

Unit 2: Database Query using SQL

Revision of database concepts and SQL commands covered in class XI

Math functions: POWER (), ROUND (), MOD ().

Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (),

LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().

Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME ().

Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*).

Querying and manipulating data using Group by, Having, Order by.

Working with two tables using equi-join

Unit 3: Introduction to Computer Networks

Introduction to networks, Types of network: PAN, LAN, MAN, WAN.

Network Devices: modem, hub, switch, repeater, router, gateway

Network Topologies: Star, Bus, Tree, Mesh.

Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP.

Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website.

Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.

Unit 4: Societal Impacts

Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.

E-waste: hazards and management.

Awareness about health concerns related to the usage of technology.

Project Work

The aim of the class project is to create tangible and useful IT application. The learner may identify a real-world problem by exploring the environment. e.g. Students can visit shops/business places, communities or other organizations in their localities and enquire about the functioning of the organization, and how data are generated, stored, and managed.

The learner can take data stored in csv or database file and analyze using Python libraries and generate appropriate charts to visualize.

Learners can use Python libraries of their choice to develop software for their school or any other social good.

Learners should be sensitized to avoid plagiarism and violation of copyright issues while working on projects. Teachers should take necessary measures for this. Any resources (data, image etc.) used in the project must be suitably referenced.

The project can be done individually or in groups of 2 to 3 students. The project should be started by students at least 6 months before the submission deadline.

Practical Marks Distribution

S. No.	Unit Name	Marks
1	Programs using Pandas and Matplotlib	8
2	SQL Queries	7

3	Practical file (minimum of 15 programs based on Pandas, 4 based on Matplotlib and 15 SQL queries must be included)	5
4	Project Work (using concepts learned in class XI and XII)	5
5	Viva-Voce	5
	TOTAL	30

5. Suggested Practical List

5.1 Data Handling

1. Create a panda's series from a dictionary of values and a ndarray
2. Given a Series, print all the elements that are above the 75th percentile.
3. Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category.
4. Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5. Filter out rows based on different criteria such as duplicate rows.
6. Importing and exporting data between pandas and CSV file

5.2 Visualization

1. Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.
2. For the Data frames created above, analyze, and plot appropriate charts with title and legend.
3. Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.

5.3 Data Management

1. Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
2. Insert the details of a new student in the above table.
3. Delete the details of a student in the above table.
4. Use the select command to get the details of the students with marks more than 80.
5. Find the min, max, sum, and average of the marks in a student marks table.
6. Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.
7. Write a SQL query to order the (student ID, marks) table in descending order of the marks.

HOME SCIENCE
Subject Code - 064
Classes XI-XII (2025-26)

Preface

The course in Home Science encompasses five areas namely, Foods and Nutrition, Human Development and Family Studies, Fabric and Apparel, Resource Management and Communication and Extension. All these domains have their specific content in focus that contributes to the study of the individual and the family in Indian social cultural context.

The purpose of Home Science is the creation of an environment and outlook to enable learner to live a richer and more purposeful life, become future ready and develop 21st century life skills for work, livelihood and careers. All the domains within the home science discipline provide ample scope for professional avenues of higher education and career opportunities. They range from professions catering to various health and service institutions/agencies, educational organizations, industry and business houses of textiles, garments, food industry, teaching learning materials, ergonomically appropriate equipment and work situations. The subject integrates the application of various sciences and humanities to improve Human Environment, Family Nutrition, Management of Resources and Child Development.

In class XI, the “Self and family” and the “Home” are focal points for understanding the dynamics for individual lives and social interactions.

In class XII, the emphasis is on “Work and careers” through the life span.

Learning Objectives:

The Home Science curriculum at senior secondary level has been framed to enable the learners to:

- develop an understanding of the self and one’s role and responsibilities as a productive individual and as a member of family, community and society.
- integrate learning across diverse domains and undertake a critical analysis of issues and concerns specific to family, community and society.
- appreciate the discipline of Home Science for professional careers.
- acquaint learners with the basic knowledge specific to five domains namely, Foods and nutrition, Human Development and Family studies, Fabric and Apparel, Resource Management and Communication and Extension.

- develop functional skills in the five domains for career and employment.
- equip learners for enrichment and higher studies.

Learning Outcomes:

After undertaking the course students will be able to:

- function as a productive and responsible individual in relation to self, family, community and society.
- apply the basics of human development with specific reference to self, family and community.
- utilize the skills of judicious management of various resources.
- be sensitized to fabric and apparel, their selection and care.
- inculcate healthy food habits and lifestyle to enable prevention and management of diseases.
- become alert and aware consumer.
- appreciate the potential of entrepreneurship and other varied professional opportunities to make informed career choices.

HOME SCIENCE
Subject Code - 064
Class XI (2025-26)

Introduction

In class XI, the “Self and family” and the “Home” are focal points for understanding the dynamics for individual lives and social interactions. The curriculum is divided in five units. Unit I introduces the concept of home science. Unit II begins with the stage of adolescence and related concerns. Unit III deals with the expanding interactions of the adolescent with others in family, school, community and society, and the needs emerging from each of these contexts. Unit IV and V focus on childhood and adulthood respectively.

Course Structure: Theory & Practical
Time: 3 Hours

Theory: 70 Marks
Practical: 30 Marks

S. No.	Units	Marks
1.	Introduction to Home Science	02
2.	Understanding oneself: Adolescence	20
3.	Understanding Family, Community and Society	15
4.	Childhood	15
5.	Adulthood	18
	Theory	70
	Practical	30
	Grand Total	100

Class XI

Unit I: Introduction to Home Science

Unit II: Understanding oneself: Adolescence

Ch. - Understanding the Self

- a. "Who am I"?
- b. Development and Characteristics of the Self (Development characteristics and needs of adolescents)
- c. Influences on Identity

Ch. - Food, Nutrition, Health and Fitness

Ch. - Management of Resources

Ch. - Fabric Around us

Ch. - Media and Communication Technology

Unit III: Understanding family, community and society

Ch. - Concerns and needs in diverse contexts:

- a. Nutrition, Health and Hygiene
- b. Resources Availability and Management

Unit IV: Childhood

Ch.-Survival, Growth and Development

Ch. - Nutrition, Health and Wellbeing

Ch. - Our Apparel

Unit V: Adulthood

Ch. - Health and Wellness

Ch. - Financial Management and planning

Ch. - Care and Maintenance of fabrics

CLASS XI

UNIT I: INTRODUCTION TO HOME SCIENCE

- What is Home Science
- Areas of Home Science
- Home Science is important for both boys and girls
- Career options of Home Science

UNIT II: UNDERSTANDING ONESELF: ADOLESCENCE

Unit II focus on the stage of adolescence – the stage of life to which you belong at present. This unit deals with understanding your own self in terms of your personal and social identity, your nutritional and health requirements, management of basic resources of time and space, fabrics around you, and your communication skills. The last chapter of the unit situates the adolescent in the context of the family and larger society, thereby linking it to the next unit that deals with the individual in relation to her/his family, school, community and society.

CHAPTER: UNDERSTANDING THE SELF

- What is Self?
 - Personal dimension
 - Social dimension
 - Self- concept
 - Self esteem
- What is Identity?
 - Personal identity
 - Social identity
- Self during Infancy: characteristics
- Self during early childhood: characteristics
- Self during middle childhood: characteristics
- Self during adolescence: characteristics
 - Identity development
 - Identity crisis
 - Real vs Ideal self
- Influences on identity
 - Developing a sense of self and identity

- Influences on formation of identity
 - Biological and Physical changes
 - Socio-cultural context
 - Emotional changes
 - Cognitive changes

CHAPTER: FOOD, NUTRITION, HEALTH AND FITNESS

- Introduction
- Definition of
 - Food
 - Nutrition
 - Nutrients
- Balanced diet
 - Definition
 - RDA
- Health and Fitness
- Using basic food groups for planning Balanced Diets
 - Food guide pyramid
- Vegetarian food Guide
- Dietary patterns in Adolescence
 - Irregular meals and skipping meals
 - Snacking
 - Fast foods
 - Dieting
- Modifying diet related behaviour
 - Diet journal
 - Exercise
 - Substance use and abuse
 - Healthy eating habits
 - Snacks
 - Drinking water
- Factors influencing eating behaviour
- Eating disorders at adolescence
- Key terms and their meaning

CHAPTER: MANAGEMENT OF RESOURCES

- Introduction
- Classification of resources
 - Human /non-human resources

- Individual / shared resources
- Natural / community resources
- Human and non-human resources
 - Human resources
 - Knowledge
 - Motivation/ interest
 - Skills/ strength/ aptitude
 - Time
 - Energy
 - Non-human resources
 - Money
 - Material resources
- Individual and shared resources
 - Individual resources
 - Shared resources
- Natural and community resources
 - Natural resources
 - Community resources
- Characteristics of resources
 - Utility
 - Accessibility
 - Interchangeability
 - Manageable
- Managing Resources
 - Management process
 - Planning - Steps in planning
 - Organising
 - Implementing
 - Controlling
 - Evaluation

CHAPTER: FABRIC AROUND US

- Definition of yarns, fibres, textile products, finishing.
- Introduction to fibre properties
- Classification of textile fibres
 - Filament/staple fibres
 - Natural/Manufactured (manmade) fibres
- Types of Natural Fibres

- Cellulosic fibres
- Protein fibres
- Mineral fibres
- Natural rubber
- Types of Manufactured Fibres
 - Regenerated cellulosic fibres
 - Modified cellulosic fibres
 - Protein fibres
 - Non-cellulosic fibres
 - Mineral fibres
- Some Important fibres and their properties
 - Cotton
 - Linen
 - Wool
 - Silk
 - Rayon
 - Nylon
 - Polyester
 - Acrylic
 - Elastomeric fibres
- Yarns
- Yarn processing
 - Cleaning
 - Making into a sliver
 - Attenuating, drawing out and twisting
- Yarn terminology
 - Yarn number
 - Yarn twist
 - Yarn and thread
- Fabric production
 - Weaving
 - Knitting
 - Braiding
 - Nets
 - Laces
- Textile Finishing
 - Finishing with colour
 - Printing

CHAPTER-MEDIA COMMUNICATION TECHNOLOGY

- Communication and Communication Technology
 - What is Communication
 - Classification of communication
 - How does communication take place
- What is media
 - Media classification and functions
- What is communication technology
 - Classification of communication technologies
 - Modern communication technologies

UNIT III: UNDERSTANDING FAMILY, COMMUNITY AND SOCIETY

The chapters in Unit II were all addressed to you for the understanding of self and of the factors that influence your decision making. Let us now move on to understanding the family, the community and the society that you are a part of. In the first section- the focus will be on relationships and interactions with significant others, i.e. those important to you in these contexts. The second section- will discuss concerns and needs, such as those of health, work, resources, education and textile tradition in the adolescent's diverse social contexts.

CHAPTER: CONCERNS AND NEEDS IN DIVERSE CONTEXTS

A. NUTRITION, HEALTH AND HYGIENE

- Health and its Dimensions
 - Social health
 - Mental health
 - Physical health
- Health care Indicators of Health
- Nutrition and Health
- Importance of nutrients
- Factors affecting nutritional well being
 - Food and nutrient security
 - Care for the vulnerable
 - Good health for all
 - Safe environment
- Nutritional Problems and their consequences
 - Malnutrition
 - Under nutrition
 - Over nutrition

- Hygiene and Sanitation
 - Personal Hygiene
 - Environmental Hygiene
 - Food Hygiene
 - Water Safety - Qualities of potable water, methods of water purification (Boiling, chlorine, storage and electric filter, RO)

B.RESOURCES AVAILABILITY AND MANAGEMENT

- Time Management
 - Definition of time plan
 - How good is your time management (Activity)?
 - Steps in making time plan
 - Tips for effective time management
 - Tools in time management - Peak load period, Work curve, Rest /break periods, Work simplification
- Space Management
 - Space and the home
 - Principles of space planning

UNIT IV: CHILDHOOD

The theme of this unit is „Childhood“. You may wonder why did the book address the adolescent years first and childhood later. Well, it is because if you as an adolescent understand issues about yourself first, it would be easier to grasp the issues that are concerned with the stage of childhood, and later with adulthood. In this unit you will be studying about children's growth and development, critical concerns about their health and nutrition, education and clothing. As we would like children with disabilities to be an inclusive part of our society, the chapters provide us important information on their needs and ways to meet them.

CHAPTER: SURVIVAL GROWTH AND DEVELOPMENT

- The meaning of survival
- Growth and development
- Areas of development
 - Physical development
 - Motor development
 - Cognitive development
 - Sensory development

- Language development
- Social development
- Emotional development
- Good Nutrition
- Stages in development
 - Neonate
 - Reflexes
 - Sensory capabilities
- Development across stages from infancy to adolescence
 - Physical and motor development
 - Language development
 - Socio –emotional development
 - Cognitive development
 - Mental processes involved in thinking
 - Stages of cognitive development
 - ❖ Sensory motor stage
 - ❖ Pre-operational stage
 - ❖ Concrete operational stage
 - ❖ Formal operational stage

CHAPTER: NUTRITION, HEALTH AND WELL-BEING

- Introduction
- Nutrition, Health and Well-being during infancy (birth – 12 months)
 - Dietary requirements of infants
 - Breast feeding
 - Benefits of breast feeding
 - Feeding the low-birth-weight infants
 - Complementary foods
 - Guidelines for complementary feeding
 - Immunization
 - Common health and nutrition problems in infants and young children
- Nutrition, Health and well-being of preschool children (1-6 years)
 - Nutritional needs of preschool children
 - Guidelines for healthy eating for preschoolers
 - Planning balanced meals for preschool children
 - Some examples of low-cost snacks
 - Feeding children with specific needs
 - Immunization

- Nutrition, Health and well-being of school-age children (7-12 years)
 - Nutritional requirements of school children
 - Planning diets for school-age children
 - Factors that influence diet intake of preschool-age and school-age children
 - Healthy habits
 - Health and nutrition issues of school age children

CHAPTER: OUR APPAREL

- Clothing functions and the selection of clothes
 - Modesty
 - Protection
 - Status and prestige
 - Adornment
- Factors affecting selection of clothing in India
 - Age
 - Climate and season
 - Occasion
 - Fashion
 - Income
- Understanding children's basic clothing needs
 - Comfort
 - Safety
 - Self help
 - Appearance
 - Allowance for growth
 - Easy care
 - Fabrics
- Clothing requirements at different childhood stages
 - Infancy (birth to six months)
 - Creeping age (6 months to one year)
 - Toddlerhood (1-2 years)
 - Preschool age (2-6 years)
 - Elementary school years (5-11 years)
 - Adolescents (11-19 years)
 - Clothes for children with special needs

UNIT V: ADULTHOOD

With the advent of adulthood, the adolescent passes through the portal of what may be termed as the “real world”. One enters the world of higher education, work and marriage, and gets involved in establishing one’s own family. Hence responsibilities of the individual increases manifold. In this unit you will learn about the major factors that play a role in determining the quality of adult life, these being health and wellness, financial planning and management, maintenance of fabrics and apparel that one uses personally as well as in the home, and appreciation of different perspectives in communication. The unit concludes with the chapter on individual responsibilities and rights, not only for one’s own self, but also in relation to the family and larger society.

CHAPTER: HEALTH AND WELLNESS

- Importance of health and fitness
- Healthy & Unhealthy diet
- BMI
- Do's and Don'ts for health promoting diets
- Fitness
- Importance of exercise and physical activities in adulthood
- Wellness
- Qualities of a person who is rated high on wellness
- Dimensions of wellness
 - Social aspect
 - Physical aspect
 - Intellectual aspect
 - Occupational aspect
 - Emotional aspect
 - Spiritual aspect
 - Environmental aspect
 - Financial aspect
- Stress and coping with stress
- Simple techniques to cope with stress
 - Relaxation
 - Talking with friends/family
 - Reading
 - Spirituality

- Music
- Hobby
- Yoga

CHAPTER: FINANCIAL MANAGEMENT AND PLANNING

- Financial management
- Financial planning
- Management
- Money and its importance
- Family Income
 - Money income
 - Real income: Direct and Indirect income
 - Psychic income
- Income management
- Budget
- Steps in making budget
- Advantages of planning family budgets
- Control in money management
 - Checking to see how well the plan is progressing
 - Mental and mechanical check
 - Records and accounts
 - Adjusting wherever necessary
 - Evaluation
- Savings
- Investment
- Principles underlying sound investments
 - Safety to the principal amount
 - Reasonable rate of interest
 - Liquidity
 - Recognition of effect of world conditions
 - Easy accessibility and convenience
 - Investing in needed commodities
 - Tax efficiency
 - After investment service
 - Time period

- Capacity
- Savings and investment avenues
 - Post office
 - Banks
 - Unit Trust of India
 - NSC
 - Mutual funds
 - Provident funds
 - Chit fund
 - Life insurance and medical insurance
 - Pension scheme
 - Gold, house, land
 - Others (new schemes)
- Credit
- Need of credit
- 4C"s of credit: character, capacity, capital means, collateral,

CHAPTER: CARE AND MAINTENANCE OF FABRICS

- Mending
- Laundering
 - Stain removal
 - Vegetable stains
 - Animal stains
 - Oil stains
 - Mineral stains
 - Dye bleeding
 - Techniques of stain removal
 - Scraping
 - Dipping
 - Sponging
 - Drop method
 - Reagent for stain removal
 - Common stains and method of removing
- Removal of dirt: the cleaning process
 - Soaps and detergents

- Methods of washing: friction, kneading & squeezing, suction, washing by machine
- Finishing
 - Blues and optical brighteners
 - Starches and stiffening agents
- Ironing
- Dry cleaning
- Storage of textile products
- Factors affecting fabric care
 - Yarn structure
 - Fabric construction
 - Colour and finishes
- Care label

NOTE:

- **Wherever required latest data/figures to be used.**
- **Latest RDA's to be used.**

CLASS XI PRACTICALS

1. Understanding oneself with reference to:
 - a) Physical development in terms of age, height, weight, hip and chest circumference.
 - b) Sexual maturity (Age at menarche, Development of breasts: girls), (Growth of beard, change in voice: boys).
2. Observe developmental norms: (Physical, Motor, Language and social emotional) birth to three years.
3. List and discuss 4-5 areas of agreement and disagreement with-
 - a) Mother
 - b) Father
 - c) Siblings/ Friends
 - d) Teacher
4.
 - a) Record own diet for a day.
 - b) Evaluate qualitatively for adequacy.
5. Preparation of different healthy snacks for an adolescent suitable in her/his context.
6.
 - a) Record one day's activities relating to time use and work.
 - b) Prepare a time plan for yourself.
7. Plan a budget for a given situation/purpose.
8.
 - a) Record the fabrics and apparel used in a day.
 - b) Categorize them according to functionality.
9. Relationship of fibre properties to their usage:
 - a) Thermal property and flammability
 - b) Moisture absorbency and comfort
10.
 - a) Analyze label of any one garment with respect to: Clarity, fibre content, size and care instructions.
 - b) Prepare one care label of any garment.
 - c) Analyze two different fabric samples for color fastness.

**SCHEME FOR PRACTICAL EXAMINATION
CLASS XI HOME SCIENCE**

M.M-30

S.No.	QUESTIONS	MARKS
1.	Observe developmental norms:(Physical, Motor, Language and social emotional) birth to three years. OR List and discuss 4-5 areas of agreement and disagreement with: a) Mother b) Father c)Siblings/Friends d)Teacher	5
2.	Preparation of healthy snacks for an adolescent.	7
3.	Plan a budget for a given situation/purpose.	3
4.	Prepare a time plan for yourself.	3
5.	Relationship of fibre properties to their usage: a) Thermal property and flammability b) Moisture absorbency and comfort OR Prepare one care label of any garment	5
6.	File Work	5
7.	Viva	2
	TOTAL	30

Prescribed textbook: Human Ecology and Family Sciences (For class XI):
Part I and Part II

HOME SCIENCE
Subject Code - 064
Class XII (2025-26)

Introduction:

In class XII, the emphasis is on “Work and careers” through the life span. Within the curriculum the significance and scope of each domain (Foods and Nutrition, Human Development and Family Studies, Fabric and Apparel, Resource Management and Communication and Extension), the multiple thrust areas emerging within them have been emphasized. The units spell out the basic concepts, requisite knowledge and skills in each thrust areas and delineate the career avenues and the preparation required for them in order to make informed career choices.

Course Structure: Theory& Practical
Time: 3 Hours

Theory: 70 Marks
Practical: 30 Marks

S. No.	Units	Marks
1.	Work, Livelihood and Career	05
2.	Nutrition, Food Science and Technology	23
3.	Human Development and Family Studies	10
4.	Fabric and Apparel	17
5.	Resource Management	10
6.	Communication and Extension	05
	Theory	70
	Practical	30
	Grand Total	100

CLASS XII

UNIT I: Work, livelihood and Career

Ch. Work, livelihood and Career

UNIT II: Nutrition, Food Science and Technology

Ch. Clinical Nutrition and Dietetics

Ch. Public Nutrition and Health

Ch. Food Processing and Technology Ch.

Food Quality and Food Safety

UNIT III: Human Development and Family Studies

Ch. Early Childhood Care and Education

Ch. Management of Support Services, Institutions and Programmes for Children,
Youth and Elderly

UNIT IV: Fabric and Apparel

Ch. Design for Fabric and Apparel

Ch. Fashion Design and Merchandising

Ch. Care and Maintenance of Fabrics in Institutions

UNIT V: Resource management

Ch. Hospitality Management

Ch. Consumer Education and Protection

UNIT VI: Communication and Extension

Ch. Development Communication and Journalism

CLASS XII HOME SCIENCE REFERENCE POINTS

UNIT I WORK, LIVELIHOOD AND CAREER

Chapter: WORK, LIVELIHOOD AND CAREER

- Introduction
 - Work and meaningful work
 - Work, careers and livelihood
- Traditional occupation in India
 - Agriculture
 - Handicrafts
 - Indian cuisine
 - Visual arts
- Work, Age and Gender
 - Gender issues in relation to work
 - Issues and concerns related to women and work
 - ✓ KGBV
 - ✓ Beti Bachao, Beti Padhao Yojana
- Attitudes and approaches to work and life skills for livelihood
 - Attitudes and approaches to work
 - Life skills for livelihood
 - Essential soft skills at workplace
- Ergonomics
 - Definition and need for Ergonomics
 - Benefits of Ergonomics
- Entrepreneurship
 - Definition and characteristics

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

Chapter: CLINICAL NUTRITION AND DIETETICS

- Introduction
 - Nutrition
 - Clinical Nutrition
- Significance

- Basic concepts
- Diet therapy
- Types of diets: Regular Diet and Modified diets
 - Changes in consistency
 - Feeding routes
 - Prevention of chronic diseases
- Preparing for career
- Scope

Chapter: PUBLIC NUTRITION AND HEALTH

- Introduction
- Significance
- Basic concept
 - Public health nutrition
 - Nutritional Problems of India
 - Protein energy malnutrition
 - Micronutrient deficiencies
- Iron deficiency anemia
- Vitamin A deficiency
- Iodine deficiency disorders
- Strategies/Intervention to tackle Nutritional problems
- Diet or food-based strategies
- Nutrient based strategies
- Nutrition programmes operating in India
- ICDS
- Nutrient Deficiency Control Programmes
- Food Supplementation Programmes
- Food Security Programme
- Health Care
- Scope

Chapter: FOOD PROCESSING AND TECHNOLOGY

- Introduction
- Significance
- Basic Concepts
 - Food Science
 - Food Processing
 - Food Technology
 - Food Manufacturing
- Development of food processing and technology

- Importance of Food processing and Preservation
- Classification of food on the basis of extent and type of processing
- Preparing for a career
- Scope

Chapter: FOOD QUALITY AND FOOD SAFETY

- Introduction
- Significance
- Basic Concepts
 - Food safety (Toxicity & Hazard)
 - Hazards (Physical, chemical and biological)
 - Food infection
 - Food poisoning
 - Food quality
- Food standards regulation in India-FSSA (2006)
- International Organization and agreements in the area of Food Standards, Quality, Research and Trade
 - Codex Alimentarius Commission
 - International Organization for Standardisation
 - World Trade Organization
- Food Safety Management Systems
 - Good manufacturing practices (GMP)
 - Good handling practices (GHP)
 - Hazard Analysis Critical Control Points (HACCP)
- Scope

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

Chapter: EARLY CHILDHOOD CARE AND EDUCATION

- Significance
- Basic concepts
- Preparing for a career
- Scope

Chapter: MANAGEMENT OF SUPPORT SERVICES, INSTITUTIONS AND PROGRAMMES FOR CHILDREN, YOUTH AND ELDERLY

- Significance
- Basic concepts
- Why are children vulnerable?
- Institutions, programmes and initiatives for children
 - ICDS

- SOS Children's Village
- Children's Homes run by the Government
- Adoption
- Why are Youth vulnerable?
- Youth programmes in India
- Why are the elderly vulnerable?
- Some programmes for the elderly
- Preparing for a career
- Scope

UNIT IV FABRIC AND APPAREL

Chapter: DESIGN FOR FABRIC AND APPAREL

- Introduction
- Basic concepts (Design: Structural & Applied)
- Elements of design
 - Colour
 - Texture
 - Line
 - Shapes or form
- Principles of Design
 - Proportion
 - Balance
 - Emphasis
 - Rhythm
 - Harmony
- Preparing for career
- Scope

Chapter: FASHION DESIGN AND MERCHANDISING

- Introduction
- Significance
- Basic Concepts
 - Fashion terminology –Fashion, fads, style, classic
- Fashion Development
 - France-The centre of fashion
 - Fashion Evolution
- Fashion Merchandising
- Fashion Retail Organization
- Preparing for a career
- Scope

Chapter: CARE AND MAINTENANCE OF FABRICS IN INSTITUTION

- Introduction
- Basic concepts
 - Washing equipment
 - Drying equipment
 - Ironing/pressing equipment
- Institutions
- Preparing for a career
- Scope

UNIT V RESOURCE MANAGEMENT

Chapter: HOSPITALITY MANAGEMENT

- Introduction
- Significance
- Basic concepts
- Departments involved in hospitality management of an organization
- Scope

Chapter: CONSUMER EDUCATION AND PROTECTION

- Introduction
- Significance of consumer education and protection
- Basic concepts
 - Consumer product
 - Consumer behaviour
 - Consumer forum
 - Consumer footfalls
 - Consumer problems
 - Consumer rights
 - Standardized marks (ISI, Wool Mark, Hall Mark, Silk Mark)
 - Protection Councils
 - Consumer Responsibilities
- Scope

UNIT VI COMMUNICATION AND EXTENSION

Chapter: DEVELOPMENT COMMUNICATION AND JOURNALISM

- Introduction
- Significance
- Basic concepts
 - Development
 - Development journalism

- Development Communication
- Methods of communication
 - Campaign
 - Radio and television
 - Print media
 - Information and communication technologies
- Knowledge and skills required for a career in this field
- Scope and career avenues in development communication

CLASS XII PRACTICALS

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

1. Modification of normal diet to soft diet for elderly person.
2. Development and preparation of supplementary foods for nutrition programme.
3. Planning a menu for a school canteen or mid-day meal in school for a week.
4. Design, prepare and evaluate a processed food product.
5. Qualitative test for food adulteration in: pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

1. Preparation and use of any one teaching aid to communicate socially relevant messages for children/ adolescents /adults in the community.

OR

Preparation of any one toy for children (age appropriate) using locally available and indigenous material.

UNIT IV FABRIC AND APPAREL

1. Preparation of any one article using applied textile design techniques; tie and dye/ batik/block printing.
2. Remove different types of stains from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea and coffee.

UNIT V RESOURCE MANAGEMENT

1. Evaluate any one advertisement for any job position.
2. Develop a leaflet/pamphlet for Consumer Education and Protection on anyone of the following-
 - a) Consumer Protection Act (CPA)
 - b) Consumer responsibilities
 - c) Consumer organization
 - d) Consumer Problem

PROJECT

ANY ONE OF THE FOLLOWING PROJECT MAY BE UNDERTAKEN AND EVALUATED-

1. Study of an integrated community based, nutrition/health programme being implemented in own area, with reference to-
 - a. Programme objectives
 - b. Focal Group/Beneficiaries
 - c. Modalities of implementation
2. Visit to the neighboring areas and interview two adolescents and two adults regarding their perception of persons with special needs.
3. Profile any two persons (child/adult) with special needs to find out their diet, clothing, activities, physical and psychological needs.
4. Planning any five messages for nutrition, health and life skills using different modes of communication for different focal groups.
5. Market survey any five processed foods with their packaging and label information.

SCHEME FOR PRACTICAL EXAMINATION**CLASS XII HOME SCIENCE****M.M-30**

S.No.	QUESTIONS	MARKS
1.	Project	5
2.	Modification of any one family meal for elderly person. Preparing any one of the modified dishes. OR Development and preparation of any one supplementary food for preschooler (2- 6 years) nutrition programme. OR Planning a menu for school canteen and preparing any one nutritious dish.	5
3.	Identify adulterant using chemical test in any one of the following- pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.	2
4.	Prepare a sample using applied textile design techniques tie and dye/batik/block printing.	4
5.	Remove any one of the stains from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea, coffee.	2
6.	Develop a leaflet/pamphlet for Consumer Education and Protection on anyone of the following- a) Consumer Protection Act (CPA) b) Consumer responsibilities c)Consumer organization d)Consumer Problems	5
7.	File Work	5
8.	Viva	2
	TOTAL	30

Prescribed textbook: Human Ecology and Family Sciences (For class XII): Part I and Part II

**QUESTION PAPER DESIGN 2025-26
HOME SCIENCE (CODE NO. 064)
CLASS- XI & XII**

TIME: 3 HOURS

Max. Marks: 70

S. No.	Typology of Questions	Total Marks	% Weightage
1.	Knowledge and Understanding based questions (terms, concepts, principles, or theories; Identify, define, or recite interpret, compare, contrast, explain, paraphrase, information)	28	40%
2.	Application based questions (Use abstract information in concrete situation, to apply knowledge to new situations or / and use given content to interpret a situation, provide an example, or solve a problem)	21	30%
3.	High Order (Formulation, Analysis, Evaluation and Creativity) based questions (Appraise, judge, and /or justify the value or worth of a decision or outcome, or to predict outcomes, classify, compare, contrast, or differentiate between different pieces or integrate unique piece of information from a variety of sources)	21	30%
	TOTAL	70	100

NOTE: Internal Choice of 30% will be given

Easy- 20%

Average- 60%

Difficult- 20%

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2025-2026

ARTIFICIAL INTELLIGENCE (SUB. CODE - 843)

JOB ROLE: AI Assistant

CLASS – XI

OBJECTIVES OF THE COURSE

AI is a discipline in computer science that focuses on developing intelligent machines, machines that can learn and then teach themselves. These machines, then, can process vast amounts of data than humans can, and several times faster. However, AI can go across all disciplines to change the world for the better– from creating new healthcare solutions, to designing hospitals of the future, improving farming and our food supply, helping refugees acclimatize to the new environments, improving educational resources and access, and even cleaning our oceans, air, and water supply. The potential for humans to improve the world through AI is endless, as long as we know how to use it.

LEARNING OUTCOMES

In this course, the students will develop knowledge, skills and values to understand AI and its implications for our society and the world and to use AI to solve authentic problems, now and in the future. The students will engage with a host of multi-media online resources, as well as hands-on activities and sequence of learning experiences.

The following are the main objectives of the course:

1. Develop informed citizens with an understanding of AI and the skills to think critically and knowledgeably about the implications of AI for society and the world.
2. Develop engaged citizens with a rigorous understanding of how AI can be harnessed to improve life and the world we live in.
3. Stimulate interest and prepare students for further study to take up careers as AI scientists and developers to solve complex real-world problems.

SCHEME OF UNITS

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students opting for skill subject along with other education subjects. The unit-wise distribution of hours and marks for class XI is as follows:

CBSE | DEPARTMENT OF SKILL EDUCATION

ARTIFICIAL INTELLIGENCE (SUBJECT CODE - 843)

CLASS – XI (SESSION 2025-2026)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS		MAX MARKS
PART A	Employability skills			
	Unit 1: Communication Skills – III	15		2
	Unit 2: Self-Management Skills – III	10		2
	Unit 3: ICT Skills – III	15		2
	Unit 4: Entrepreneurial Skills – III	10		2
	Unit 5: Green Skills – III	10		2
	TOTAL	60		10
PART B	Subject specific skills	Theory	Practical	
	Unit 1: Introduction: Artificial Intelligence for Everyone	4	10	4
	Unit 2: Unlocking your Future in AI	6	10	5
	Unit 3: Python Programming	10	20	5
	Unit 4: Introduction to Capstone Project	6	15	5
	Unit 5: Data Literacy – Data Collection to Data Analysis	6	15	6
	Unit 6: Machine Learning Algorithms	9	15	6
	Unit 7: Leveraging Linguistics and Computer Science	5	10	5
	Unit 8: AI Ethics and Values	4	5	4
	TOTAL	50	100	40
PART C	PRACTICAL WORK / PROJECT WORK			
	IBM Skills Build Certification/any other industry certification			5
	Capstone Project			12
	Bootcamps/ Internship/other startups			7
	Practical File			10
	Lab Test/ Written Exam (based on practical file)			10
	Viva Voce (based on practical file and project)			6
	TOTAL			50
	GRAND TOTAL			100

DETAILED CURRICULUM/TOPICS:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills – III	15
2.	Unit 2: Self-Management Skills – III	10
3.	Unit 3: Basic Information and Communication Technology Skills – III	15
4.	Unit 4: Entrepreneurial Skills – III	10
5.	Unit 5: Green Skills – III	10
	TOTAL	60

NOTE: Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

- ❖ Unit 1 – Introduction: Artificial Intelligence for Everyone
- ❖ Unit 2 – Unlocking your Future in AI
- ❖ Unit 3 – Python Programming
- ❖ Unit 4 – Introduction to Capstone Project
- ❖ Unit 5 – Data Literacy – Data Collection to Data Analysis
- ❖ Unit 6 – Machine Learning Algorithms
- ❖ Unit 7 – Leveraging Linguistics and Computer Science
- ❖ Unit 8 – AI Ethics and Values

UNIT 1 - INTRODUCTION: ARTIFICIAL INTELLIGENCE FOR EVERYONE

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Students will be able to – <ul style="list-style-type: none">• Communicate effectively about AI concepts and applications in written and oral formats.• Describe the historical development of AI.• Differentiate between various types and domains of AI, including their applications.• Recognize the key terminologies and concepts related to machine learning and deep learning.• Formulate informed opinions on the potential benefits and limitations of AI in various contexts.	<ul style="list-style-type: none">• What is Artificial Intelligence?• Evolution of AI• Types of AI• Domains of AI• AI Terminologies• Benefits and limitations of AI	<ul style="list-style-type: none">• Categorize the given applications into the three domains. <p>Examples of Machine Learning & Reinforcement Learning given in the course below:</p> <p><u>IBM Skills Build – Introduction to AI</u></p>

UNIT 2 - UNLOCKING YOUR FUTURE IN AI

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Articulate the demand for AI professionals and the diverse career opportunities available in the field. • Identify the requisite skills and tools needed to pursue a career in artificial intelligence. • Understand the potential roles and responsibilities of AI professionals across different industries. • Explore resources for further learning and skill development in the field of AI. • Evaluate their own interests and skills to determine potential pathways for a career in AI. 	<ul style="list-style-type: none"> • The Global Demand • Some Common Job Roles In AI • Essential Skills and Tools for Prospective AI Careers • Opportunities in AI across Various Industries 	<ul style="list-style-type: none"> • Identify ten companies currently hiring employees for in specific AI positions. • Note down the technical skills and soft skills listed by any two companies for the specific AI position. <p><u>IBM Skills Build: Your Future in AI: The Job Landscape</u></p>

UNIT 3 - PYTHON PROGRAMMING

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Explain the basics of python programming language and write programs with basic concepts of tokens. • Use selective and iterative statements effectively. • Gains practical knowledge on how to use the libraries efficiently. 	<p>Level 1: Basics of python programming, character sets, tokens, modes, operators, datatypes, Control Statements</p> <p>Level 2: CSV Files, Libraries – NumPy, Pandas, Scikit-learn</p>	<ul style="list-style-type: none"> • Minimum five programs to be taught using operators, data types, control statements (Level 1) • Minimum 5 programs on NumPy, Pandas, Scikit-learn (Level 2) <p><u>IBM SkillsBuild - Python for Data Science</u></p>

UNIT 4 - INTRODUCTION TO CAPSTONE PROJECT

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Decompose any problem using the 5W1H method. • Apply Design thinking methodology. • Create empathy maps. • Align problems to SDGs. • Apply all the learnings in solving real world problems. • Express their solution to a problem in non-technical words. 	<ul style="list-style-type: none"> • Design Thinking • Empathy Map • Sustainable Development Goals • Capstone Project 	<ul style="list-style-type: none"> • Create an empathy map for a given scenario. • Project Abstract Creation Using Design Thinking Framework. <p><u>IBM SkillsBuild - What is Design thinking?</u></p>

UNIT 5 - DATA LITERACY – DATA COLLECTION TO DATA ANALYSIS

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Explain the importance of data literacy in AI. • Identify different data collection methods and their applications. • Comprehend mathematical concepts related to matrices, its operations, and applications. • Apply basic data analysis techniques to analyse data. • Visualize the data using different techniques. 	<ul style="list-style-type: none"> • What is Data Literacy? • Data Collection • Exploring Data • Statistical Analysis of data • Representation of data, Python Programs for Statistical Analysis and Data Visualization • Introduction to Matrices • Data Pre-processing • Data in Modelling and Evaluation 	<ul style="list-style-type: none"> • Identification of the level of measurement. • Python programs to demonstrate the use of mean, median, mode, standard deviation and variance. • Python programs to visualise the line graph, bar graph, histogram, scatter graph and pie chart using matplotlib. rainfall.csv <p>IBM SkillsBuild - Data Visualisation with Python (Modules 1,2,3)</p>

UNIT 6 – MACHINE LEARNING ALGORITHMS

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Differentiate the different types of machine learning methods. • They will be able to understand the concept behind each machine learning methods. • Apply these methods to develop simple solutions for some day-to-day situations. • Build up this knowledge to the next level to apply during Capstone Project development. 	<ul style="list-style-type: none"> • Machine Learning in a nutshell • Types of Machine Learning • Supervised Learning • Understanding Correlation, Regression, Finding the line, Linear Regression algorithm • Classification – How it works, Types, k – Nearest Neighbour algorithm • Unsupervised Learning • Clustering – How it works, Types, k -means Clustering algorithm 	<ul style="list-style-type: none"> • Calculation of Pearson correlation coefficient in MS – Excel. • Demonstration of Linear regression in MS – Excel. • Demonstration of Linear regression using python program. (**For Advanced Learners) • Demonstration of k – Nearest Neighbour using python program. (**For Advanced Learners) • Demonstration of k – means clustering using python program. (**For Advanced Learners) <p>IBM SkillsBuild - Machine learning with Python</p>

UNIT 7 – LEVERAGING LINGUISTICS AND COMPUTER SCIENCE

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Develop a better understanding of the complexities of language and the challenges involved in NLP tasks. • Learn new techniques and algorithms for NLP tasks. 	<ul style="list-style-type: none"> • Understanding Human Language Complexity • Introduction to Natural Language Processing (NLP) - Emotion Detection and Sentiment Analysis, Classification Problems, Chatbot • Phases of NLP • Applications of NLP 	<ul style="list-style-type: none"> • Write an article on “IBM Project Debater – Interesting facts”. • Create a chatbot on ordering ice-creams using any of the following platforms: <ul style="list-style-type: none"> • Google Dialogflow • Botsify.com • Botpress.com • Program to print the POS tags of a statement. (**For Advanced Learners) • Creating a simple rule based chatbot using Python. (**For Advanced Learners) <p>IBM SkillsBuild - Natural Language Processing</p>

UNIT 8 – AI ETHICS AND VALUES

S. No	LEARNING OUTCOMES	THEORY	PRACTICAL
1	<p>Students will be able to –</p> <ul style="list-style-type: none"> • Demonstrate an understanding of the fundamental principles of ethics and gain insight into ethical considerations related to AI technologies. • Develop an understanding of AI bias, its sources, and its real-world implications, as well as the ethical considerations. • Identify and apply strategies for mitigating bias in AI systems to promote fairness and transparency in technology. • Recognize the significance of AI policies in promoting responsible, safe, and ethical use of AI technologies. 	<ul style="list-style-type: none"> • Ethics in Artificial Intelligence • The five pillars of AI Ethics • Bias, Bias Awareness, Sources of Bias • Mitigating Bias in AI Systems • Developing AI Policies • Moral Machine Game • Survival of the Best Fit Game 	<ul style="list-style-type: none"> • Summarize your insights and interpretations from the video "Humans need not apply." • Activity: Role Play on biased AI systems • Comparative study of AI policies (that involve examining guidelines and principles) established by various organizations and regulatory bodies. • Understanding ethical dilemma using: Moral machine Survival of the best fit <p>IBM SkillsBuild - AI Ethics</p>

****Note- All portions under Advanced Learners are not to be evaluated in Theory or Practical Examinations.**

PART – C

1. Practical File

Note: The following to be included in the Practical File

- **One certification (IBM SkillsBuild (any of the courses listed above) /any other industry certification)**
- **At least one activity from each unit**
- **One participation certificate of bootcamp/internship**

Unit-wise sample activities for Practical file given as below:

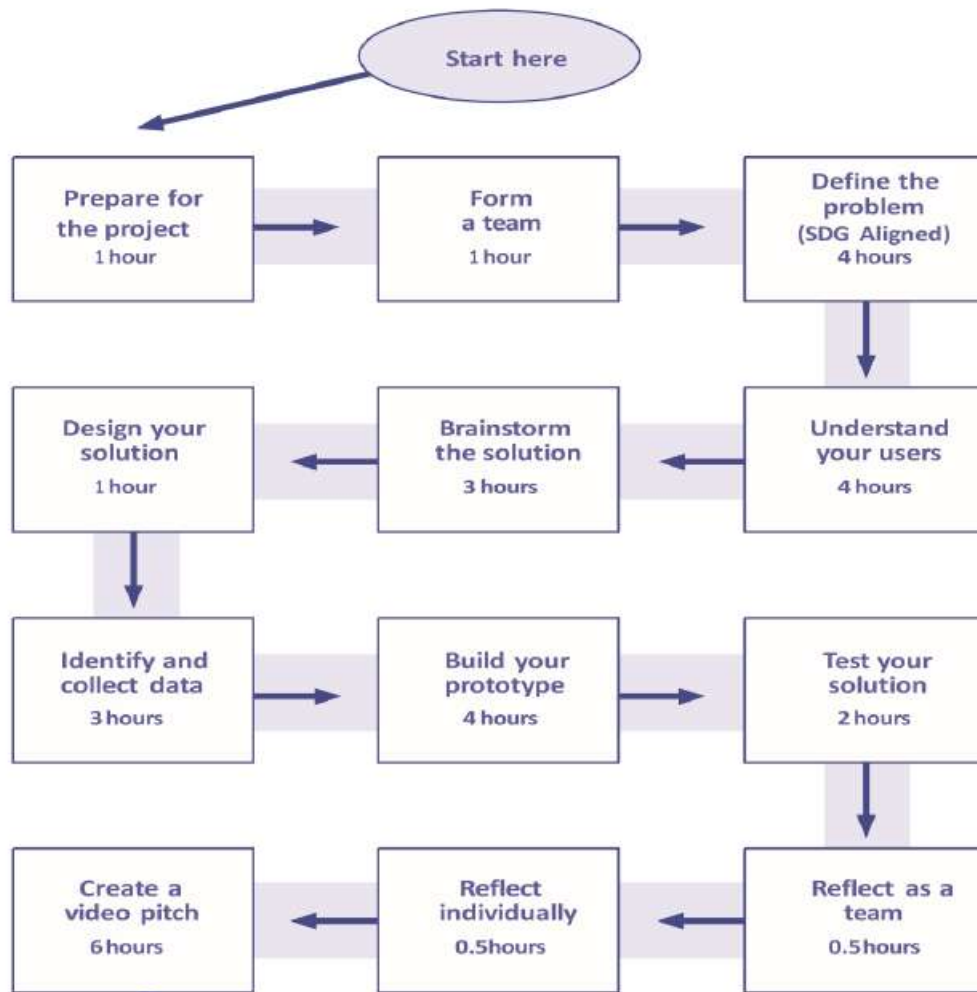
1. Categorize the given applications into the three domains as given on pg. 5 of the Students Handbook.
2. Identify ten companies currently hiring employees for in specific AI positions.
3. Note down the technical skills and soft skills listed by any two companies for the specific AI position.
4. Python programs using operators, data types, control statements (**Level 1**)
5. Python programs on NumPy, Pandas, Scikit-learn (**Level 2**)
6. Create an empathy map for a given scenario.
7. Project Abstract Creation Using Design Thinking Framework.
8. Python programs to demonstrate the use of mean, median, mode, standard deviation and variance.
9. Python programs to visualise the line graph, bar graph, histogram, scatter graph and pie chart using matplotlib.
10. Calculation of Pearson's correlation coefficient in MS – Excel.
11. Demonstration of Linear regression in MS – Excel.
12. Create a chatbot on ordering ice-creams using any of the following platforms:
 - a. Google Dialogflow
 - b. Botsify.com
 - c. Botpress.com
 - d. Any other online platform
13. Summarize your insights and interpretations from the video "Humans need not apply."
14. Comparative study of AI policies (that involve examining guidelines and principles) established by various organizations and regulatory bodies.
15. Understanding ethical dilemma using
 - Moral machine
 - Survival of the best fit

Additional programs for Practice (not to be evaluated)

[Sample programs for regression, classification and clustering along with the dataset is in this link.](#)

2. Capstone Project

Project Guidelines



Note: Prepare for the project; Form a team; Define the problem (SDG aligned); Understand your users; Brainstorm the solution; Design your solution; stages must be completed in the project documentation.

Project Documentation(As per the process given in "Project Guidelines", on page 2 of [CBSE IBM Projects Cookbook](#))

LIST OF EQUIPMENTS/ MATERIALS:

The list given below is suggestive and an exhaustive list should be compiled by the teacher(s) teaching the subject. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

S. NO.	ITEM NAME, DESCRIPTION & SPECIFICATION
A	HARDWARE
1	Computer with latest configuration or minimum core I5 Processor or equivalent with minimum 8 GB RAM, 512 GB SSD, 17" LED Monitor, NIC Card, 3 button Mouse, Camera, 105 keys keyboard, speakers, mic, Wi-Fi / Internet connectivity, Webcam, UPS, Dual Band Wireless Connectivity Min 100 Mbps and integrated graphic cards
2	Fire extinguisher
B	SOFTWARE SPECIFICATIONS
1	Any Operating System with antivirus activated
2	Python IDLE
3	Anaconda Navigator Distribution – Python IDE installed with software: NumPy, Pandas, Matplotlib, Scikit Learn)
4	Productivity Suite: Any (Google+ Suite recommended)

Additional Recommendations:

- Ensure regular updates and maintenance for all installed software to benefit from bug fixes, security patches, and new features.
- Provide licenses for commercial software, such as MS Office, as per the school's requirements and budget.
- Encourage teachers and students to stay updated with the latest versions of the software and tools and provide resources for learning and support.
- Consider implementing version control systems (e.g., Git) to facilitate collaborative coding and project management.

TEACHER'S/ TRAINER'S QUALIFICATIONS:

Qualification and other requirements for appointment of teachers/trainers for teaching this subject, on contractual basis should be decided by the State/ UT. The suggestive qualifications and minimum competencies for the teacher should be as follows:

Qualification	Minimum Competencies	Age Limit
Diploma in Computer Science/ Information Technology OR Bachelor Degree in Computer Application/ Science/ Information Technology (BCA, B.Sc. Computer Science/ Information Technology) OR Graduate with PGDCA OR DOEACCA Level Certificate. The suggested qualification is the minimum criteria. However higher qualifications will also be acceptable.	The candidate should have a minimum of 1 year of work experience in the same job role. S/he should be able to communicate in English and local language. S/he should have knowledge of equipment, tools, material, Safety, Health & Hygiene.	18-37 years (as on Jan. 01 (year)) Age relaxation to be provided as per Govt. rules

Teachers/Trainers form the backbone of Skill (Vocational) Education being imparted as an integral part of Rashtriya Madhyamik Shiksha Abhiyan (RMSA). They are directly involved in teaching of Skill (vocational) subjects and also serve as a link between the industry and the schools for arranging industry visits, On-the-Job Training (OJT) and placement.

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- (i) Directly as per the prescribed qualifications and industry experience suggested by the PSS Central Institute of Vocational Education (PSSCIVE), NCERT or the respective Sector Skill Council (SSC).

OR

- (ii) Through accredited Vocational Training Providers accredited under the National Quality Assurance Framework (NQAF*) approved by the National Skill Qualification Committee on 21.07.2016. If the State is engaging Vocational Teachers/Trainers through the Vocational Training Provider (VTP), it should ensure that VTP should have been accredited at NQAF Level 2 or higher.

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- Prepare session plans and deliver sessions which have a clear and relevant purpose and which engage the students;
- Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- Make effective use of learning aids and ICT tools during the classroom sessions;
- Engage students in learning activities, which include a mix of different methodologies, such as project-based work, team work, practical and simulation-based learning experiences;
- Work with the institution's management to organise skill demonstrations, site visits, on job trainings, and presentations for students in cooperation with industry, enterprises and other workplaces;
- Identify the weaknesses of students and assist them in up-gradation of competency;
- Cater to different learning styles and level of ability of students;
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- Provide placement assistance

Assessment and evaluation of (Vocational) Teachers/Trainers is very critical for making them aware of their performance and for suggesting corrective actions. The States/UTs should ensure that the performance of the (Vocational) Teachers/Trainers is appraised annually. Performance based appraisal in relation to certain pre-established criteria and objectives should be done periodically to ensure the quality of the (Vocational) Teachers/Trainers.

Following parameters may be considered during the appraisal process:

- Participation in guidance and counseling activities conducted at Institutional, District and State level;
- Adoption of innovative teaching and training methods;
- Improvement in result of vocational students of Class X or Class XII;
- Continuous up-gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
- Membership of professional society at District, State, Regional, National and International level;
- Development of teaching-learning materials in the subject area;
- Efforts made in developing linkages with the Industry/Establishments;
- Efforts made towards involving the local community in Vocational Education
- Publication of papers in National and International Journals;
- Organization of activities for promotion of vocational subjects;
- Involvement in placement of students/student support services.

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2025-2026

ARTIFICIAL INTELLIGENCE (SUB. CODE - 843)

JOB ROLE: AI Assistant

CLASS – XII

OBJECTIVES OF THE COURSE:

Artificial Intelligence (AI) is a transformative field in computer science that focuses on creating intelligent systems capable of learning, adapting, and self-improving. These systems can process vast amounts of data with remarkable speed and accuracy, surpassing human capabilities in many domains. AI's impact extends across disciplines, offering innovative solutions to some of the world's most pressing challenges. From revolutionizing healthcare with advanced diagnostics and personalized treatments to enhancing agricultural practices and ensuring food security, AI has the power to reshape industries. It can improve access to quality education, and play a pivotal role in protecting and restoring our planet's ecosystems by cleaning our oceans, air, and water. The possibilities for leveraging AI to create a better future are boundless, provided we harness its potential responsibly and ethically.

LEARNING OUTCOMES:

By the end of this course, students will:

1. Develop an informed perspective on Artificial Intelligence (AI), enabling them to think critically about its implications for society and the world.
2. Understand the role of Python in AI development and its practical applications.
3. Harness the power of AI using no-code tools like Orange Data Mining to solve complex problems efficiently.
4. Comprehend the significance of Data Science Methodology in a Capstone Project to address real-world challenges.
5. Explore the fundamentals of computer vision and its applications in processing and analyzing digital images and videos, as well as its role in intelligent machines.
6. Delve into the diverse possibilities of Generative AI, including image generation, text synthesis, audio production, and video creation.
7. Understand the structure and components of neural networks, building a foundational knowledge of deep learning.
8. Appreciate the value of storytelling as a powerful tool to communicate ideas, insights, and solutions effectively in the context of AI.

SCHEME OF UNITS:

This course follows a structured sequence of instructional units designed to develop employability and vocational skills among students. These units are carefully crafted to integrate seamlessly with other educational subjects, fostering a holistic learning experience.

CBSE | DEPARTMENT OF SKILL EDUCATION

ARTIFICIAL INTELLIGENCE (SUBJECT CODE - 843)

CLASS – XII (SESSION 2025-2026)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS		MAX MARKS
PART A	EMPLOYABILITY SKILLS			
	Unit 1: Communication Skills-IV	15		2
	Unit 2: Self-Management Skills-IV	10		2
	Unit 3: ICT Skills-IV	15		2
	Unit 4: Entrepreneurial Skills-IV	10		2
	Unit 5: Green Skills-IV	10		2
	TOTAL	60		10
PART B	SUBJECT SPECIFIC SKILLS	Th.	Prac.	
	Unit 1: Python Programming – II*	6	18	(*to be evaluated in practicals only)
	Unit 2: Data Science Methodology: An Analytic Approach to Capstone Project	8	12	8
	Unit 3: Making Machines See	6	12	6
	Unit 4: AI with Orange Data Mining Tool*	4	18	(*to be evaluated in practicals only)
	Unit 5: Introduction to Big Data and Data Analytics	7	12	6
	Unit 6: Understanding Neural Networks	8	12	8
	Unit 7: Generative AI	6	12	7
	Unit 8: Data Storytelling	5	4	5
	TOTAL	50	100	40
PART C	PRACTICAL WORK / PROJECT WORK			
	Capstone Project + Project Documentation (As per the process given in “Project Guidelines”, on page 2 of CBSE IBM Projects Cookbook) <ul style="list-style-type: none"> Capstone Project =15 Marks Project Documentation = 6 Marks Video= 4 Marks 			25
	Practical File			10
	Lab Test (Python and Orange Data Mining)			10
	Viva Voce (based on Capstone Project + Practical File)			5
	TOTAL			50
	GRAND TOTAL (THEORY + PRACTICAL)			100

(NOTE: *marked units/portion is to be evaluated in practicals only)

DETAILED CURRICULUM/TOPICS FOR CLASS XII

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-IV	15
2.	Unit 2: Self-management Skills-IV	10
3.	Unit 3: Information and Communication Technology Skills-IV	15
4.	Unit 4: Entrepreneurial Skills-IV	10
5.	Unit 5: Green Skills-IV	10
	TOTAL	60

NOTE: The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from the CBSE website.

Part-B - SUBJECT SPECIFIC SKILLS

❖ Unit 1: Python Programming – II*

❖ Unit 2: Data Science Methodology: An Analytic Approach to Capstone Project

❖ Unit 3: Making Machines See

❖ Unit 4: AI with Orange Data Mining Tool*

❖ Unit 5: Introduction to Big Data and Data Analytics

❖ Unit 6: Understanding Neural Networks

❖ Unit 7: Generative AI

❖ Unit 8: Data Storytelling

(NOTE: *marked units/portion is to be evaluated in practicals only)

UNIT 1: PYTHON PROGRAMMING - II *(to be evaluated in practicals only)

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none"> Recap of NumPy library Recap of Pandas Library Importing and Exporting Data between CSV Files and DataFrames Handling missing value Linear Regression algorithm (**For Advanced Learners) 	<ul style="list-style-type: none"> Apply the fundamental concepts of the NumPy and Pandas libraries to perform data manipulation and analysis tasks Import and export data between CSV files and Pandas Data Frames, ensuring data integrity and consistency. 	<ul style="list-style-type: none"> Import and Export Data between CSV Files and DataFrames Implement Linear Regression algorithm on Google Colab or any Python IDE. (**For Advanced Learners)

UNIT 2: DATA SCIENCE METHODOLOGY: AN ANALYTIC APPROACH TO CAPSTONE PROJECT

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none"> Introduction to Data Science Methodology Steps for Data Science Methodology Model Validation Techniques Model Performance-Evaluation Metrics 	<ul style="list-style-type: none"> Integrate Data Science Methodology steps into the Capstone Project. Identify the best way to represent a solution to a problem. Understand the importance of validating machine learning models Use key evaluation metrics for various machine learning tasks 	<ul style="list-style-type: none"> Calculate MSE and RMSE values for the data given using MS Excel Calculate Precision, Recall, F1 score, and Accuracy from the given confusion matrix Python Code to Evaluate a Model (*to be evaluated in practicals only)

UNIT 3: MAKING MACHINES SEE

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none"> How Machines See Working of Computer Vision Computer Vision Process Applications of Computer Vision Challenges of Computer Vision The Future of Computer Vision Working with OpenCV (**For Advanced Learners) 	<ul style="list-style-type: none"> Explain computer vision and its significance in visual data analysis. Understand key stages of computer vision, including acquisition, preprocessing, feature extraction, and analysis. Identify real-world applications in fields like healthcare, surveillance, and autonomous vehicles. Analyze challenges such as ethics, privacy, and technical limitations. Explore future advancements and transformative potential of computer vision. Develop basic skills in using OpenCV and deploying machine learning models online. 	<ul style="list-style-type: none"> Binary Art - Recreating Images with 0s and 1s Creating a Website Containing an ML Model Working with OpenCV to load, display and resize images (**For Advanced Learners)

UNIT 4: AI WITH ORANGE DATA MINING TOOL (*to be evaluated in practicals only)

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none">• What is Data Mining?• Introduction to Orange Data Mining Tool• Beneficiaries of Orange data mining• Getting started with Orange tool• Components of Orange• Default Widget Catalogue• Key domains of AI with ORANGE DATA MINING TOOL	<ul style="list-style-type: none">• Develop proficiency in utilizing the Orange Data Mining tool, enabling them to navigate its interface, employ its features, and execute data analysis tasks effectively.• Demonstrate the ability to apply Orange in real-world scenarios across diverse domains of artificial intelligence, including data science, computer vision, and natural language processing (NLP), through hands-on projects and case studies.	<ul style="list-style-type: none">• Load and visualize the Iris dataset using Scatter Plot and other widgets.• Use classification widgets• Evaluating the Classification Model with Orange• Computer Vision with Orange• Natural Language Processing with Orange

UNIT 5: INTRODUCTION TO BIG DATA AND DATA ANALYTICS

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none">• Introduction to Big Data• Types of Big Data• Advantages and Disadvantages of Big Data• Characteristics of Big Data• Big Data Analytics• Working on Big Data Analytics• Mining Data Streams• Future of Big Data Analytics	<ul style="list-style-type: none">• Understanding Big Data, its types, advantages and disadvantages.• Recognize the characteristics of Big Data.• Explain the concept of Big Data Analytics and its significance.• Analyze the future trends in the field of Big Data Analytics.• Understanding the term Mining Data Streams.	<p>*Performing Big Data analytics with Orange Data mining tool. (*to be evaluated in practicals only)</p>

UNIT 6: UNDERSTANDING NEURAL NETWORKS

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none">• Parts of a Neural Network• Components of a Neural Network• Working of a Neural Network• Types of Neural Networks• Future of Neural Networks and Societal Impact	<ul style="list-style-type: none">• Explain the basic structure and components of a neural network.• Identify different types of neural networks and their respective applications.• Understand machine learning and neural networks through hands-on projects, interactive tools, and Python programming.	<ul style="list-style-type: none">• Explore Machine Learning for Kids to create a neural network for identifying animals and birds.• Build a TensorFlow model to convert Celsius to Fahrenheit (*to be evaluated in practicals only)• Use Python Keras to create and train a neural network predicting Fahrenheit from Celsius. (**For Advanced Learners)• Classification problem using TensorFlow playground

UNIT 7: GENERATIVE AI

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none">• Introduction to Generative AI• Working of Generative AI• Generative and Discriminative models• Applications of Generative AI• LLM- Large Language Model• Future of Generative AI• Ethical and Social Implications of Generative AI	<ul style="list-style-type: none">• How Generative AI works.• Differentiate between Generative AI and Discriminative AI and identify their use cases.• Explore ethical, social, and legal concerns.• Gain hands-on experience using AI tools to generate creative and analytical outputs, such as images, texts, and videos.• Use the Gemini API to design and deploy a functional chatbot.	<ul style="list-style-type: none">• Signing up for Canva Activity.• Animaker's AI Video Generation tool.• Use Google Gemini to craft prompts and generate text outputs.• Explore ChatGPT for conversational text generation and creative tasks.• Write Python code to initialize the Gemini API and create a chat bot. (**For Advanced Learners)

UNIT 8: DATA STORYTELLING

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/PRACTICALS
<ul style="list-style-type: none">• Introduction to Storytelling• Elements of a Story• Introduction to Data Storytelling• Why is Data Storytelling Powerful?• Essential Elements of Data Storytelling• Narrative Structure of a Data Story (Freytag's Pyramid)• Types of Data and Visualizations for Different Data• Steps to Create a Story Through Data• Ethics in Data Storytelling	<ul style="list-style-type: none">• Understand the benefits of storytelling.• Appreciate the role of data storytelling in data analysis, data science, and AI.• Learn to combine data, visuals, and narrative to present complex information effectively.• Gain skills to draw meaningful insights from data stories.	<ul style="list-style-type: none">• Create an effective data story using given data.

****Note- All portions under Advanced Learners are not to be evaluated in Theory or Practical Examinations.**

(NOTE: *marked units/portion is to be evaluated in practicals only)

PART – C:

1. Practical File:

The following are to be included in the Practical File

1. Minimum 6 programs of Python.
2. Minimum 3 programs using Orange Data Mining tool.
3. Minimum 1 problem to create a Data Story using all steps of Data Storytelling.

Optional Programs- for practical File

- Demonstration of train-test split in Linear Regression using Python.
- Chatbot using Google Gemini API.
- Orange Data Mining for Data Analytics.
- Classification problem using TensorFlow playground.
- Regression problem using TensorFlow playground.

(snapshots to be attached)

Sample programs for reference

I. Python

1. Write Python code to create a Pandas DataFrame using any sequence data type.
 - a) Display the DataFrame.
 - b) Display first 5 records.
 - c) Display last 10 records.
 - d) Display the number of missing values in the dataset.
2. Download dataset in the form of CSV from any public open-source website.
 - a) Read CSV File and convert it into Pandas DataFrame.
 - b) Perform statistical functions on the dataset to check the data, checking missing values, filling missing data etc.
3. Python Code to Evaluate a Model.

II. Orange Data Mining

1. Perform step wise procedure of Data Visualization using the Orange Data Mining Tool.
2. Perform Classification with Orange Data Mining.
3. Evaluate the Classification Model with Orange.
4. Perform Image analytics using the Orange data mining tool.
5. Write down steps to visualize word frequencies with Word Cloud using the Orange Data Mining tool.

Note: Snapshots of all the steps and outputs to be taken and pasted in the practical file.

III. Data Storytelling (Sample)

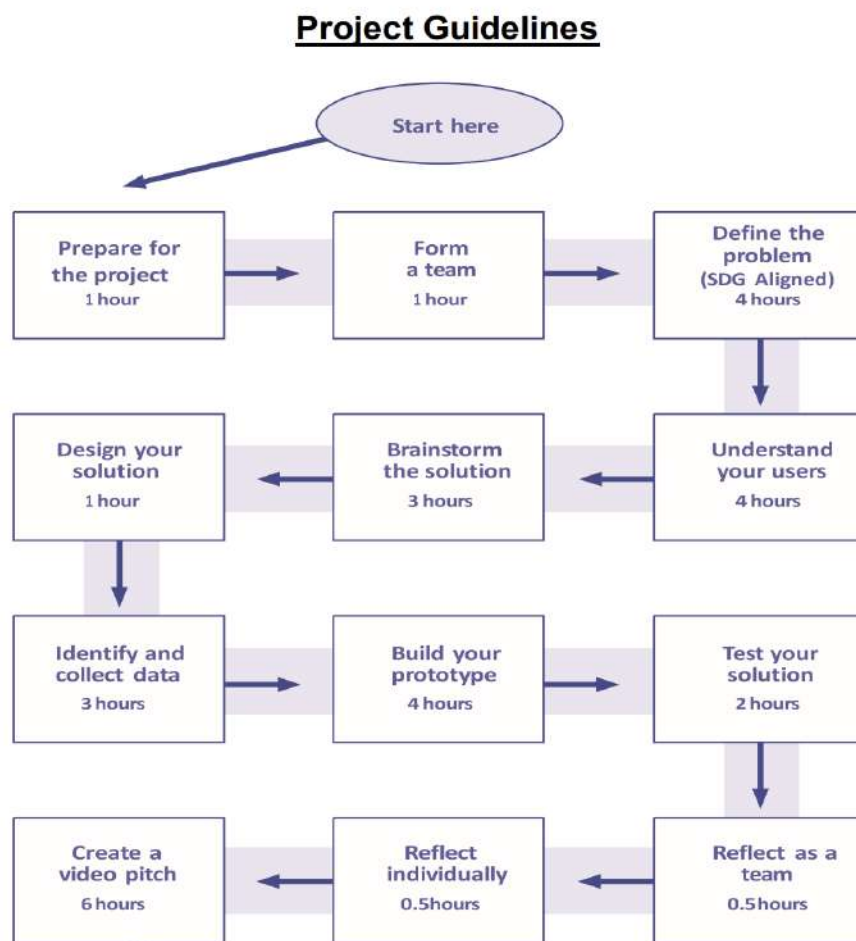
Using available data on student enrollment, attendance, and dropout rates, create a compelling data story that explores the impact of the Mid-Day Meal Scheme (MDMS) since its launch in 1995. Uncover trends, patterns, and correlations in the data to tell a story about how the implementation of the MDMS may have influenced dropout rates in the state over the years. Consider incorporating visualizations, charts, and graphs to effectively communicate your findings. Additionally, analyze any external factors or events that might have played a role in shaping these trends. Your goal is to provide a comprehensive narrative that highlights the relationship between the MDMS and student dropout rates in the state.

2. Capstone Project:

Capstone Project Guidelines:

- In a group, minimum 3 and maximum 5 students are allowed.
- Their projects should be aligned with any of the SDGs.
- Students will complete their Capstone Project in Class XII and complete the project documentation.
- Video of the Capstone Project should be exactly of 3 minutes duration.
- The video will have the following components:
 - a. Problem statement
 - b. To which SDG the project is aligned to
 - c. AI concept/domains/algorithms used
 - d. Working of the project
 - e. Conclusion
 - f. Acknowledgement to the teacher

Please refer to the Project guidelines of [CBSE-IBM AI PROJECT COOKBOOK \(Page -2\)](#)



Note for Educators: Python or No code/low code platforms like Orange Data Mining tool can be chosen by the students for developing their Capstone Projects.

LIST OF EQUIPMENTS/ MATERIALS:

The list given below is suggestive and an exhaustive list should be compiled by the teacher(s) teaching the subject. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

S. NO.	ITEM NAME, DESCRIPTION & SPECIFICATION
A	HARDWARE
1	Computer with latest configuration or minimum core I5 Processor or equivalent with minimum 8 GB RAM, 512 GB SSD, 17" LED Monitor, NIC Card, 3 button Mouse, Camera, 105 keys keyboard, speakers, mic, WiFi / Internet connectivity, Webcam, UPS, Dual Band Wireless Connectivity Min 100 Mbps and integrated graphic cards
2	Fire extinguisher
B	SOFTWARE SPECIFICATIONS
1	Any Operating System with antivirus activated
2	Python IDLE
3	Anaconda Navigator Distribution – Python IDE installed with software: NumPy, Pandas, Matplotlib, Scikit Learn)
4	Productivity Suite: Any (Google+ Suite recommended)
5	Orange Data Mining Tool

Additional Recommendations:

- Ensure regular updates and maintenance for all installed software to benefit from bug fixes, security patches, and new features.
- Provide licenses for commercial software, such as MS Office, as per the school's requirements and budget.
- Encourage teachers and students to stay updated with the latest versions of the software and tools and provide resources for learning and support.
- Consider implementing version control systems (e.g., Git) to facilitate collaborative coding and project management.

TEACHER'S/ TRAINER'S QUALIFICATIONS:

Qualification and other requirements for appointment of teachers/trainers for teaching this subject, on contractual basis should be decided by the State/ UT. The suggestive qualifications and minimum competencies for the teacher should be as follows:

Qualification	Minimum Competencies	Age Limit
Diploma in Computer Science/ Information Technology OR Bachelor Degree in Computer Application/ Science/ Information Technology (BCA, B.Sc. Computer Science/ Information Technology) OR Graduate with PGDCA OR DOEACCA Level Certificate. The suggested qualification is the minimum criteria. However higher qualifications will also be acceptable.	The candidate should have a minimum of 1 year of work experience in the same job role. • S/he should be able to communicate in English and local language. S/he should have knowledge of equipment, tools, material, Safety, Health & Hygiene.	<ul style="list-style-type: none">• 18-37 years (as on Jan. 01 (year))• Age relaxation to be provided as per Govt. rules

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- Adoption of innovative teaching and training methods;
- Improvement in result of vocational students of Class X or Class XII;
- Continuous up-gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
- Membership of professional society at District, State, Regional, National and International level;
- Development of teaching-learning materials in the subject area;
- Efforts made in developing linkages with the Industry/Establishments;
- Efforts made towards involving the local community in Vocational Education
- Publication of papers in National and International Journals;
- Organization of activities for promotion of vocational subjects;
- Involvement in placement of students/student support services.

FINE ARTS
Subject Code: 049 TO 052
Classes XI-XII (2025-26)

Arts can broadly be classified into the Visual, Literary, and Performing Arts. It involves innovative and imaginative ways of expression in different forms using a variety of material and media.

NEP 2020 helps students to utilize various aspects and forms of art and culture as the basis for learning concepts across subjects. A part of the thrust on experiential learning, art-integrated education, embedded in classroom transactions, not only creates joyful learning but helps in imbibing the Indian ethos through the knowledge of Indian art and culture.

Art in School Education addresses the Goals and Competencies for every student to find diverse ways of persisting and solving problems. We not only create an artwork, but also enjoy the experience of viewing and responding to many forms of cultural expression. When they create artwork together and work collaboratively, they recognize one another's strengths and develop deeper connections with the world around them. Such a process nurtures empathy, appreciation, cooperation, and trust, all of which are fundamental for developing social and human values, such as ahimsa, love, compassion, friendship, and peaceful co-existence. As a common language, the Arts bring people together and lead them to develop acceptance, understanding, and mutual respect

Art classes involve three important processes—making artwork, thinking creatively in the Arts, and appreciating all forms of artistic expression down the ages. This immersive experience of producing art improves cognition, leaving a positive and long-lasting impact on the development of aesthetic sensibilities, expression, imagination, observation, crafting skills, creativity, and students' overall confidence in their own abilities.

Aims

Through Art students should be able to connect with their culture and appreciate the diversity of artistic expressions. For an effective Art Education programme, schools must aim to achieve:

- a. **Joy in exploring and creating artwork:** This would mean gaining a variety of aesthetic experiences and deriving joy from all forms of art.
- b. **Imagination and creativity:** Acquiring and applying creative thinking and artistic capacities through experimentation and sustained practice in the Arts is at the heart of Art Education.
- c. **Empathy and sensitivity:** Meaningful experience in the Arts has great potential to nurture empathy and sensitivity towards the expressions of others.
- d. **Understanding of connections with other disciplines:** The Arts teaches appreciation of beauty in nature and the observation of details and patterns. This approach to the understanding of disciplines makes for aesthetic experiences in themselves.
- e. **Sense of belonging:** Through artistic engagement, students will find connections

to their own culture and traditions, as well as learn an appreciation for India's multicultural diversity and knowledge of contemporary artists and art practices.

- f. **Development of Aesthetic Sensibilities:** Students should be able to describe the characteristics of things they find beautiful, do subjective interpretations, assess the aesthetic qualities of artwork based on the commonly accepted criteria in the Arts and expand their 'tastes' by participating in art processes.

Art Education deals with developing creativity, aesthetic sensibilities, cultural literacy which familiarizes them with significant events, figures, and works of literature, that have shaped a society and had a lasting impact on its development. This is done through the knowledge of various forms of Visual Arts

Practical & Theory

Art education at Secondary stage focus on giving Emphasis on Process, and not just Product

Artistic processes, such as ideation, creation, presentation, response, review, and making connections, ensures development of cognitive, affective, psychomotor, socio-emotional, and language while learning the Arts as thinking, making, and appreciation processes are fundamental to Art Education.

Thinking processes refer to a wide range of cognitive activities while working in the Arts. The first is the process of generating ideas and innovating while creating artwork. The second is understanding and applying the elements of various Art forms (point, line, shape & form, colour, shape tones, texture, space.) The third is inquiry and critical probing into art practices and aesthetic experiences. The fourth is to attempt newer, reasonable interpretations while working in the Arts. The fifth is to connect the Arts with other knowledge as well as one's own experiences.

Making processes are related to the execution and production of artwork. These processes engage the mind and body for expressing ideas and feelings. This includes use of materials, tools, and other resources. The making processes also focus on exploring techniques, refining skills, and practicing creative improvisation while producing artwork.

Appreciation processes begin with the exposure to a wide range of art forms, artists, and their practices through structured Art sessions or through the local environment and culture. This develops an awareness of how the Arts communicate a variety of expressions. Furthermore, the process reveals how these expressions are interpreted differently by every individual. While viewing Art, one also needs to consider the social, historical, and contextual background of an artwork and its viewers. Responding to art also requires the ability to describe aesthetic experiences and share personal interpretations or viewpoints. The capacity to assess artwork and develop aesthetic judgement is also an important part of the appreciation processes. All these processes are interlinked and cannot be addressed in isolation if a meaningful and complete art learning experience is desired.

A student may offer any one of the following courses:

A. Painting (Code No.049)

OR

B. Graphics (Code No.050)

OR

C. Sculpture (Code No.051)

OR

D. Applied Art-Commercial Art (Code No.052)

The following art terminologies for all the four subjects are prescribed for reference and general enrichment.

1	Shadanga: Six limbs of Indian Painting	“Roopabhedah- The knowledge of form and proportion, including the difference between forms Pramanan- Measurement and structure Bhava- Expression and emotion Lavanya-Yojanam Sadrishtyam- Aesthetic composition and grace in art Varnakabhangam- Use of colour
2	Fundamentals of Visual Arts	
	The seven Elements	Point, line, shape & form, colour, tones, texture and space.
	The seven principles	Unity, harmony, balance, rhythm, emphasis, proportion and contrast
3	Media of Composition Drawing, Technique Style Materials	Sketching, drawings in vertical, horizontal format in two and three dimensions using foreshortening, perspective, eye level, fixed point of view, vanishing point, ratio-proportion. Still-life, landscape, anatomy, abstraction and stylization. Transparent and opaque techniques using various kinds of locally available materials such as Paper or Surface - Cartridge, Canvas and Hard- board, handmade Sheet Colours-Charcoal, Soft Pastels, Oil Pastels Crayons, Natural Colours, Earth colours Pencil, Water, Acrylic, Poster, Inks etc..
4	Painting	Paintings, Wall-Mural, Collage, Mosaic, Fresco, Installation Art, New and Digital art etc.
5	Sculpture	Relief and round sculpture, modeling with clay, terra-cotta, carving in wood, stone, bronze casting, plaster of paris and metal welding, 3D Printing etc.

6	Graphics	Linocut, relief printing, etching, lithography, silkscreen printing, offset printing.
7	Applied Art – Commercial Art	Calligraphy, Book cover design and illustration, cartoon, poster, Advertisements, newspaper and magazine, animation and printing processes, photography, computer-graphic, digital art, hoarding and Television, letter press and offset printing
8	Portfolio Assessment Method	Sketch file, artworks done during the entire two year related to the subject chosen by the student: Painting, Applied Art, Graphics, Sculpture.

Art portfolio

The Art Portfolio will consist of a compilation of all art works, from sketch to finished product. The submission would include original artworks reflective of gradual improvement.

Step by step development of the work will be assessed in all units.

At least one artwork should be based on Experiential Learning and Art Integration
Arts integration cannot be a replacement for dedicated Art classes in the school curriculum.

Components of a Portfolio:

- Timeline based completion of artworks.
- Research based artworks promoting Folk and Contemporary Art and Artists.
- Resources and materials based on newness and local availability
- Study of connections with Indian Artists and art movements.
- Creating Art with Aesthetic Sensibility.
- Developing personal artistic style.
- Art centric studies (e.g. artworks based on Observation and Imagination)
- Portfolio based on the creative thinking and may include all varied forms of Artistic Expression.
- Evaluation of final work that develop aesthetic judgement
- Any kind of personalized creative addition in relation to artwork

Profile of Learners Growth Values and Attitudes Rubric. The learner develops the ability to:

- Respect, appreciate and demonstrate an open mind towards the artistic expression of others.
- Appreciates the commonality, interconnectedness, and diversity of aesthetic sensibilities across Indian and global Art practices and cultures.
- Acceptance, Adaptation, Exploration and Experimental based creative learning.
- Be sensitive towards other's creations
- Be ready to research and transfer his/her learning to their own art

- Take initiative, develop confidence and overall Aesthetic Sensibilities.
- Promoting enjoyable, experiential and holistic learning for their own growth.
- Art students should be able to apply theoretical knowledge in practical contexts
- Maintaining balance between technology and creative hand skills
- Be resourceful and organized to meet the designated submission deadlines.
- Students must learn to uphold values through art, listen and engage attentively, encourage rational questioning and critically reflect through the artwork.

Portfolio Assessment for fine arts may be done on the basis of following criteria

Creativity: Portfolio should demonstrate student's unique creative approach to problem-solving through art. Artworks of students with disabilities must be viewed with compassion and inclusive approach.

Relevant support material should form a part of submission such as:

1. Sketches & drawing to develop aesthetic judgement and sensibility.
2. Detailed Study - observation, record, analysis
3. Interpreting a variety of themes and unique ideas
4. Capturing moods and emotions
5. Sophistication of technique using the Fundamentals of Visual Arts (Elements and Principles)
6. Artistic statement and expressions that artist wants to convey through the artwork

Innovation: To execute the knowledge gained with the help of art in developing confidence to explore, depict, and celebrate human experience through the Art. Exercises their imagination and creativity freely.

Technique: To foster creativity and self-expression student should explore basic processes, materials, and techniques (basic understanding of colour concept and application in relation to colour and texture of the material used by the student). Size, details, proportion required according to the base used for the painting medium chosen according to their art stream. Techniques studied from folk style, contemporary art or traditional art should be used while creating a new concept, observing beauty in their surroundings, to develop an interest in a variety of local Art forms and cultural practices

The learners develop capacities in any one form of Visual Arts and an appreciation for diverse Art practices and traditions in India.

- Discover their potential for creativity, self-expression and visual awareness through art.
- Feel confident with the chosen medium as a means of communicating and generating ideas.
- Develop a habit of observation, recording, manipulation and application skills.
- Experiment with a range of media and techniques.
- Relate their work to other artists work and understand the historical and cultural context of their work.

- Include a diversity of context, resources, and artistic genres.
- Develop critical awareness and promote democratic values, respect, and compassion for a variety of artistic expressions. Dialogues around art and aesthetics must aim to develop multiple perspectives and respect diverse viewpoints.
- Include traditional and contemporary practices in the Arts.

Competencies Based Execution of Work

- The focus of Art Education is to provide wide exposure to a range of materials, techniques, and tools before developing excellence in any one Art form or process.
- Originality in the presentation (paintings, sketches, etc.)
- Demonstrate an understanding of basic colour principles, colour mixing and representation.
- Employ a variety of traditional and experimental techniques and processes.
- Use a variety of media and materials.
- Observe, record, analyses, interpret a variety of subjects, including:
 - the manufactured environment
 - Familiar Themes
 - Interdisciplinary Practice
 - Practicing Art Etiquette and Ethics
 - the natural environment
 - the human figure
- Showcase artworks of personal aesthetic style and self-expression.
- Discuss and connect own artwork with other class students and recognize master artist's work.
- Observe and collaborate with experimental art and design areas.
- Self-evaluation and critical judgment of their artworks during the creative process.

Experimentation: A gateway to creative exploration

- Exploration based:** Students should express their ideas and emotions freely and fearlessly through experimental approach.
- Skills based:** It is expected that their skills will demonstrate proof of the process and exploration of a wide range of subjects. An accepted standard of achievement using a range of media and material should be an integral part of students' development.
- Research based:** Art students are required to show artworks based on research carried out on aesthetic judgment and their research skills should be demonstrated in the process presented by students through their art.
- Field trips:** Excursions and visits to museums, art galleries, local artisans, art fairs, artists' studios etc. must be encouraged as an integral part of art curriculum

A. PAINTING (Subject Code 049)

Introduction

The course in Painting at Second phase of Secondary stage as an elective subject is aimed to develop aesthetic sense of the students through the understanding of various important well-known aspects and modes of visual art expression in India's rich cultural heritage from the period of pre-Historic times to the present time. It also encompasses practical exercises in drawing and painting to develop their mental faculties of observation, imagination, creation and physical skills required for expressions and aesthetic appreciation of art.

Objectives

A. Theory (History of Indian Art)

The objective of including the history of Indian Art for the students is to familiarize them with the various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to enjoy the beauty of nature and life. The students will also have an opportunity to observe and study the evolution of its mutations and synthesis with other style and the rise of an altogether new style. The students should be made aware of art as a human experience. The teachers should be able to expose them to the wide range of artistic impressions, the media and the tools and technique used. The history of Indian art is vast; hence the students should be made well acquainted with brief glimpses of the development of Indian visual art that are required for concept formation. Examples included in their course of study are selected for their aesthetic qualities and artistic relevance that are intended purely as guidelines.

B. Practical

The purpose of introducing practical exercises in painting is to help and enable the students:

- a. To develop skill of using drawing and painting material (surface, tools equipment and techniques etc.) effectively.
- b. To sharpen their observation skills through study of common objects and various geometrical and non-geometrical forms found in life and nature.
- c. To develop their skills to draw and paint these observations.
- d. To develop an understanding of painting-composition (The use of the elements and the principles of painting-composition).
- e. To create the forms and the colour schemes in imagination with an ability to express them effectively in drawing and painting.
- f. To express the different feelings and Emotions of life and nature in lines, forms and colours.
- g. To develop aesthetic sensibility and skill enhancement.

PAINTING THEORY

CLASS–XI

Theory Paper
Unit wise Weightage

30 Marks
Time: 2 Hours

Units	History of Indian Art	Marks
1	Pre-Historic rock paintings and art of Indus / Sindhu Saraswati Civilization (Indus valley Civilization) Buddhist, Jain and Hindu Art	15
2	Temple Sculptures, Bronzes and Artistic aspects of Indo-Islamic architecture	15

Unit 1	Content
Pre-Historic Rock-Paintings	
1.	<ul style="list-style-type: none"> • Introduction • Period and Location • Study and appreciation of following pre-historic paintings: Wizard's Dance, Bhimbethaka • Extension: In about 1500 miles. Harappa & Mohenjo-daro (Now in Pakistan) Ropar, Lothal, Rangpur, Alamgirpur, Kali Bangan, Banawali and Dholavira (in India)
2	Study and appreciation of following: Sculptures in Bronze and Terra cottas: Introduction to Method of Bronze casting
	<ul style="list-style-type: none"> • Dancing girl (Mohenjo-daro) Bronze, 10.5 x 5 x 2.5 cm. Circa 2500 B.C. (Collection: National Museum, New Delhi). • Male Torso (Harappa) Red lime Stone, 9.2 x 5.8 x 3 cms. Circa 2500 B.C. (Collection: National Museum, New Delhi) • Mother Goddess (Mohenjo-daro) terracotta, 22 x 8 x 5 c Circa 2500 B.C. (Collection: National Museum, New Delhi)
3	Study and appreciation of following Seal: <ul style="list-style-type: none"> • Bull (Mohenjo-daro) Stone (Steatite), 2.5 x 2.5 x 1.4 cm. Circa 2500 B.C. (Collection: National Museum, New Delhi). • Decoration on earthen wares: Painted earthen-ware (Jar) Mohenjo-daro (Collection: National Museum, New Delhi).

Buddhist, Jain and Hindu Art (3rd century B.C. to 8th century A.D.)	
1.	General Introduction and understanding of Art during <ul style="list-style-type: none"> Mauryan Period: Mirror like polish (eg. Chauri Bearer from Didar Ganj/Yakshi called Monalisa of India, Iron Pillar of Qutab Minar that has never rusted. Shunga: Kushana Period: evolution and mutation of Gandhara, Mathura Gupta Period: Amalgamation of Gandhara, Mathura into Gupta Style
2.	Study and appreciation of following Sculptures. <ol style="list-style-type: none"> Lion Capital from Sarnath Circa: 3rd Century BCE Period: Mauryan Material: Polished sandstone, Collection: Sarnath Museum, U.P. Chauri Bearer from Didar Ganj (Yakshi) Circa 3rd Century BCE Period: Mauryan Material: Polished sandstone, Collection: Patna Museum, Bihar. Seated Buddha from Katra Mound, Mathura Circa 3rd Century C.E. Period: Kushan (Mathura Style) Material: Red-spotted Sandstone, Collection: Govt. Museum, Mathura Jain Tirathankara Circa: 5th Century Period: Gupta period:5th Century CE Material: Stone Collection: State Museum, Lucknow U.P.
3.	Introduction to Ajanta Location Period: 5 th Century CE No of caves:30 Chaitya Caves: 5 (9,10,19,26,29) subject matter- Buddha meditating Vihara Caves: 25 subject matter- Bodhisattva Padmapani Techniques: Rock cut Architecture, sculpture, fresco painting

Unit 2	Temple Sculpture, Bronzes and artistic aspects of Indo- Islamic Architecture
(A)	Artistic aspects of Indian Temple sculpture Period: 6th Century CE to 13th Century CE 1. Introduction to Temple Sculpture Overview of temple sculpture practices in India, with a focus on key periods, regions, and stylistic developments between the 6th and 13th centuries CE.

	<p>2. Study and Appreciation of Notable Temple Sculptures:</p> <p>Descent of Ganga</p> <ul style="list-style-type: none"> • Period: Circa 7th Century CE • Dynasty: Pallava • Material: Granite Rock • Location: Mahabalipuram, Tamil Nadu <p>Trimurti</p> <ul style="list-style-type: none"> • Period: Circa 9th Century CE • Material: Stone • Location: Elephanta, Maharashtra <p>Lakshmi Narayana (Kandariya Mahadev Temple)</p> <ul style="list-style-type: none"> • Period: Circa 10th Century CE • Dynasty: Chandela • Material: Stone • Location: Khajuraho, Madhya Pradesh <p>Cymbal Player (Konark Sun Temple)</p> <ul style="list-style-type: none"> • Period: Circa 13th Century CE • Dynasty: Ganga Dynasty • Material: Stone • Location: Odisha <p>Mother and Child (Vimal-Shah Temple, Dilwara)</p> <ul style="list-style-type: none"> • Period: Circa 13th Century CE • Dynasty: Solanki Dynasty • Material: White Marble • Location: Mount Abu, Rajasthan
(B)	<p>Bronzes:</p> <ol style="list-style-type: none"> 1. Introduction to Indian Bronzes. 2. Method of casting (solid and hollow) 3. Study and appreciation of following South Indian Bronze: <p>Nataraj</p> <ul style="list-style-type: none"> • Period: Circa 12th Century CE • Dynasty: Chola • Location: Thanjavur District, Tamil Nadu • Collection: National Museum, New Delhi
(C)	<p>Artistic aspects of the Indo-Islamic architecture:</p> <ol style="list-style-type: none"> 1. Introduction 2. Study and appreciation of following architecture: <ul style="list-style-type: none"> • Qutub Minar, Delhi • Gol Gumbad of Bijapur

PAINTING PRACTICAL CLASS–XI

Practical Paper

70 Marks

Unit wise Weightage

Time: 6 Hours (3+3)

	Content	Marks
1	Nature and Object Study (Observation Based)	25
2	Painting Composition (Imagination based)	25
3	Portfolio Assessment	20
		70

Part	Content	Marks
1	Nature and Object Study (Observation Based) Study of two or three natural and geometric forms in pencil with light and shade from a fixed point of view. Natural forms like plants, vegetables, fruits and flowers, etc., are to be used. Geometrical forms of objects like cubes, cones, prisms, cylinders and spheres should be used.	25
2	Painting Composition (Imagination based) Simple exercises of basic drawing and colouring of human figures organized in attractive visual compositions. Sketches from life and nature	25
3	Portfolio Assessment (a) Record of the entire years' performance from sketch to finished product. (b) Five selected nature and object study exercises in any media done during session including minimum of two still life exercises. (c) One selected work of paintings composition done during the year (d) Two selected works of paintings done during the year	10 5 2 3

Note: These selected works prepared during the course by the candidates and certified by the school authorities as the work done in the school will be placed before the examiner for assessment.

1. The candidates should be given one hour-break after first three hours.
2. The time-table to be so framed as to allow the students to work continuously for minimum of two periods at a stretch.

PAINTING THEORY CLASS–XII

Theory Paper
Unit wise Weightage

Maximum Marks:30
Time: 2 Hours

Unit	Content	Marks
1	<ul style="list-style-type: none"> • The Rajasthani School of Miniature Painting • Pahari School of Miniature Painting • The Mughal School of Miniature Painting • Deccan Schools of Miniature Painting 	15
2	<ul style="list-style-type: none"> • Indian National Flag • The Bengal School of Painting • The Modern Trends in Indian Art Paintings, Graphic Prints, Sculptures 	15
		30

Unit 1	<p>Miniature Paintings (16th Century A.D. to 19th Century A.D.) A brief introduction to Indian Miniature Schools: Western- Indian, Pala, Rajasthani and Pahari, Mughal and Deccan, Central India.</p> <p>Appreciation of art works from your syllabus from the following schools</p> <ol style="list-style-type: none"> The Rajasthani School The Pahari School The Mughal School The Deccan School <p>based on their:</p> <ol style="list-style-type: none"> Origin and Development Sub-Schools Main features Characteristics Aesthetic parameters Competency based identification of style & technique Understanding of emotions and moral values Respect for life.
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The Rajasthani School:

Title	Painter	Sub- School
Maru-Ragini	Sahibdin	Mewar
Chaugan Players	Dana	Jodhpur
Krishna on swing	Nuruddin	Bikaner
Radha (Bani- Thani)	Nihal Chand	Kishangarh
Bharat Meets Rama at Chitrakuta	Guman	Jaipur

The Pahari School:

Title	Painter	Sub-School
Krishna with Gopis	Manku	Basohli
Nand, Yashoda and Krishna with Kinsmen Going to Vrindavana	Nainsukh	Kangra

The Mughal School:

Title	Painter
Krishna Lifting Mount Govardhan	Miskin
Falcon on a Bird-Rest	Ustad Mansoor
Kabir and Raidas	Ustad Faquirullah Khan
Marriage Procession of Dara Shukoh	Haji Madni

The Deccan School:

Title	Painter	Sub-School
Hazrat Nizamuddin Auliya and Amir Khusro	Unknown	Hyderabad
Chand Bibi Playing Polo (Chaugan)	Unknown	Gol Konda

Unit 2:	<p>The Bengal School of Painting and the Modern trends in Indian Art (About the beginning to mid of the 20th Century), contribution of Indian artists towards freedom movement, Revival of Indian Art, Indian National Flag</p> <p>Appreciation of art works from your syllabus based on their:</p> <ol style="list-style-type: none"> 1. Origin and Development 2. Main features 3. Characteristics 4. Aesthetic parameters 5. Symbolic representation in artworks. 6. Competency based identification of style & technique 7. Understanding of emotions and moral values 8. Respect for life.
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A National Flag of India: The Symbolic significance of its forms and the colours.
Contribution of Indian artists in the struggle for National Freedom Movement.

B The Bengal School of Painting

Title	Painter
Journey's End	Abanindranath Tagore
Shiv and Sati	Nandlal Bose
Radhika	M.A.R. Chughtai
Meghdoot	Ram Gopal Vijaivargiya

C The Modern Trends in Indian Art

Appreciation of the following contemporary (Modern) Indian Art

i. Paintings:

Rama Vanquishing the Pride of the Ocean	Raja Ravi Varma
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Mother and child	Jamini Roy
Haldi Grinders	Amrita Sher Gill
Mother Teresa	M.F. Hussain
ii. Graphic - prints:	
Children	Somnath Hore
Devi	Jyoti Bhatt
Of Walls	Anupam Sud
Man, Woman and Tree	K. Laxma Goud
iii. Sculptures:	
Triumph of Labour	Triumph of Labour
Santhal Family	Santhal Family
Cries Un - heard	Cries Un - heard
Ganesha	Ganesha

The names of artists and titles of their artworks as listed above are only suggestive and in no way exhaustive. Teachers and students should expand this according to their own resources. However, the questions will be set from the above-mentioned artworks only.

PAINTING PRACTICAL CLASS–XII

Practical Paper
Time allotted: 6 hours (3+3)
Unit wise Weightage

Maximum Marks:70

Unit	Content	Marks
1	Nature and Object Study	25
2	Painting Composition	25
3	Portfolio Assessment	20
	Total	70

Unit 1	Nature and Object study Studies on the basis of exercises done in class XI with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from a fixed point of view.	25 marks
Unit 2:	Painting Composition Imaginative painting based on subjects from Life and Nature in water and poster colours with colour values.	25 marks
Unit 3:	Portfolio Assessment	20 marks
a)	At least 6 best paintings of two years from sketch to finished product.	6 marks
b)	6 selected nature and object study exercises in any media done during the sessions	6 marks
c)	2 selected works of painting- composition done by the candidate during the year	4 marks
d)	1 selected work based on any Indian Folk Art 1 individual work of student's own style.	4 marks
e)	6+6+2+1+1=16 art works	20 marks

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

Note:

1. The candidates should be given one hour-break after first three hours.
2. The timetable should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

Guidelines for Evaluation of Practical

1. Marking Scheme:

Part I: Still – Life (Nature and Object Study)	25 marks
(i) Drawing (composition)	10
(ii) Treatment of media/colours	05
(iii) Overall impression	10
Part II: Painting Composition	25 marks
(i) Compositional arrangement including emphasis on the subject	10
(ii) Treatment of media (colour) and appropriate colour scheme	05
(iii) Originality, creativity and overall impression	10
Part III Portfolio Assessment	20 marks
(i) Record of the entire year's performance from sketch to finished product.	06
(ii) Six selected nature and object study exercises in any media	06
(iii) Two selected painting compositions prepared by the candidate	04
(iv) One selected work based on any Indian Folk Art	02
(v) One selected original artwork of the student in OWN style	02

2. Format of the Questions:

Part I: Nature and Object Study

- Draw and paint the still-life of a group of three objects
- Choose three different objects of three different materials. (eg. glass, book, terracotta)
- Arrange them on a surface before you
- Add two draperies with different colours to enhance the objects
- Sit on a place allotted and view from a fixed point of view
- Use a half imperial size drawing paper
- Colour with any medium or mix media.
- Your drawing should be proportionate to the size of the paper.
- The objects should be painted in realistic manner with proper light, shade, shadow, proportion, perspective, etc.
- In this study the base should not be included.

Note: A group of objects to be decided by the external and internal examiners jointly as per instructions and arranged before the candidates.

Part II: Painting Composition:

- Make a painting - composition on any ONE of the following five subjects.
- At least four to five full size human figures in action should be made.
- The figures should be large and big enough covering at least half the space.
- A choice from any of the following medium can be made (water/pastel, tempera, acrylic)
- Use a half imperial size drawing-paper of either horizontally or vertically.
- The composition should be original and effective.
- Weightage will be given to a well composed drawing, effective use of media, proper emphasis on the subject matter and utilization of full space.

Note: Any five subjects for painting composition are to be decided by the external and internal examiners jointly as per instructions and are to be mentioned here strictly just before the start of the examination for part II.

(A) Instructions for the selection of the objects for Object Study:

The examiners (Internal and External) are to select/decide three suitable objects in such a way so that natural and geometrical forms may be covered in the group of objects:

- Natural-forms-large size foliage and flowers, fruits, and vegetables, etc.
- Geometrical forms made of wood/plastic/paper/metal/earthen/glass etc., such as cube, cone, prism, cylinder and sphere.
- Objects should be selected generally of large (suitable) size.
- An object relating to nature, according to the season and location of the examination center, must be included in the group of objects.
- The natural objects should be purchased/arranged only on the day of the examination so that its freshness may be maintained.
- Two draperies in different colours (one in dark and other in light tone) are also to be included for background and foreground, keeping in view the colours and tones of the objects.

(B) Instructions to decide the subjects for Painting-Composition:

- The examiners (Internal and External) are to select/decide five subjects suitable for painting – composition
- These should be according to the standard of Class XII and environment of the school/candidates.
- The subjects should be so designed that the candidates may get clear-cut ideas of the subjects, and they can exercise their imagination freely, because it is not important what you do, but how you do it.
- Some identified areas of the subjects for painting-composition are given below, in which some more areas may also be added:
 - (i) Affairs of family, friends and daily life activities and emotions.
 - (ii) Affairs related to human professionals
 - (iii) Games and sports activities.
 - (iv) Nature
 - (v) Fantasy
 - (vi) National, religious, cultural, historical and social events and celebrations.

3. General Instructions to the examiners:

- Candidates should be given one-hour break after first three hours.
- Work of the candidates, for Part I (Still- Life),
Part II (Painting Composition)
Part III (Portfolio Assessment) are to be evaluated **on the spot jointly by the external and internal examiners.**
- Each work of Part I, II and III, after assessment is to be marked as "Examined" and duly signed by the external and internal examiners jointly.

B. GRAPHICS (Subject Code 050)

Introduction: The Course in Graphics at Second phase of Secondary stage as an elective subject is aimed to develop aesthetic sense of the students through the understanding of various important, well-known aspects and modes of Visual art expression in India's rich cultural heritage from the period of Indus Valley to the present time. It encompasses also a wider range of practical exercises in making of graphic prints for developing their mental faculties of observation, imagination, creation and physical & technical skills.

Objectives

a) Theory

Note: As the syllabus of Graphics (Theory) is the same as that of Painting (Theory), its objectives are same.

b) Practical

The purpose of introducing practical exercises in graphics is to help and enable students to make simple compositions in monochrome and in colours through the various print-making techniques using methods and material specifically prescribed for adequate results. The students should be introduced to the subject by giving a short history of the print making techniques. They should be given exercises to inculcate respect for the tools and apparatus- used in the various processes including their maintenance and proper handling.

GRAPHICS THEORY CLASS–XI

Theory Paper

Maximum Marks:30

Time allowed: 2 hours

Unit Wise Weightage

Units	History of Indian Art	Marks
1	Pre-Historic rock paintings and art of Indus / Sindhu Saraswati Civilization (Indus valley Civilization) Buddhist, Jain and Hindu Art	15
2	Temple Sculptures, Bronzes and Artistic aspects of Indo-Islamic architecture	15

Note: The Syllabus of Graphics (Theory) for Class XI is the same as that of Painting (Theory) for class XI given earlier.

GRAPHICS PRACTICAL CLASS–XI

Practical Paper

Maximum Marks:70

Time allowed: 6 Hours (3+3)

Unit wise Weightage

Part	Content	Marks
1	Relief Printing through Linocut/ Woodcut/ Paper-cardboard	50
2	Portfolio Assessment	20
	Total	70

Part 1:	To make Linocut/Woodcut/Paper-cardboard print on 1/4 Imperial sheet on a given subject Syllabus for Relief Printing (Linocuts/Woodcuts/Paper-cardboard Prints). 1. Printing methods and materials. 2. Characteristics of printing inks, solvents, and years. 3. Registration methods. 4. Simple, colour printing techniques. Finishing and mounting of the print.	
Part 2:	Portfolio Assessment	
a)	Record of the entire year's performance from sketch to finished product	10 Marks
b)	Three selected prints (either from Linocuts/ Woodcuts/Paper-cardboard prints) from the works prepared during the course.	06 marks
c)	Four selected prints based on Indian Folk Art	04 marks

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

Note:

1. The candidates should be given one hour-break after first three hours.
2. The timetable should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

GRAPHICS THEORY CLASS–XII

Theory Paper
Time allowed: 2 Hours
Unit Wise Weightage

Maximum Marks: 30

Unit	Content	Marks
1	<ul style="list-style-type: none"> The Rajasthani School of Miniature Painting Pahari School of Miniature Painting The Mughal School of Miniature Painting Deccan Schools of Miniature Painting 	15
2	<ul style="list-style-type: none"> Indian National Flag The Bengal School of Painting The Modern Trends in Indian Art Paintings, Graphic Prints, Sculptures 	15
		30

Note: The Syllabus of Graphics (Theory) for Class XII is the same as that of Painting (Theory) for class XII given earlier.

GRAPHICS PRACTICAL CLASS–XII

Practical Paper
Time allowed: 6 hours.
Unit wise Weightage

Maximum Marks: 70

Part	Content	Marks
1	Making of graphic-print through Serigraphy/Lithography/Etching and Engraving (Intaglio Process) techniques	50
2	Portfolio Assessment	20
	Total	70

Note: The students in the class are expected to opt for any one of the following media depending upon the facilities available in their schools.

S. No.	Units
a)	Serigraphy <ol style="list-style-type: none"> The history of stencils and silkscreen. Methods and materials. The use and maintenance of the squeeze. Sealing, registration for colour, work and preparation for printing. Solvents for cleaning, use and characteristics of printing inks. Finishing and mounting of the print.
	OR

b)	Lithography 1. Introduction: Short history and the methods and material used in producing lithographic prints 2. The use and characteristics of the Litho stone/Zinc plates. 3. The use of lithographic chalks and ink (Tusche). 4. Preparing for printing and use of various chemicals inking and taking proofs. 5. Papers used in lithography and getting the final print. 6. Finishing and mounting of the print.
	OR
c)	Etching and Engraving (Intaglio Process) 1. Introduction to intaglio technique with a short history, methods and materials, Etching process. 2. Preparing the plate and laying the ground (resist) and Inking. 3. Characteristics of different types of grounds. 4. Characteristics and use of various acids. 5. Colour etching, use of stencils and marks.

GUIDELINES FOR EVALUATION OF PRACTICAL

• Marking Scheme:

Part:1	Graphic-Composition (print making)	Marks 50
(i)	Emphasis on the subject	10
(ii)	Handling on the material and technique of printmaking	10
(iii)	Composition and quality of print	30
Part:2	Portfolio Assessment	Marks 20
(a)	Record of the entire year's performance from sketch to finished product.	10
(b)	Five selected Prints (Four selected prints based on– Linocut/Woodcut/paper-card based prints (8 marks) ONE in their own style (2 marks)	10

• Format of the questions:

Part I: Graphic Composition (print making)

50 marks

- Choose one of the print-making medium available and taught in your school viz. serigraphy, lithography, etching and engraving.
- Make a Graphic-Composition on any one of the five subjects given below according to the possibility and suitability of the medium:
- (Note: Any five suitable subjects for “Graphic-Composition, Printmaking” are to be decided by the internal and external examiners jointly in accordance with the instructions are to be mentioned here).
- Make use of line, tone and texture, exploiting the medium fully to realize composition. Print your composition in one or two colours.
- Pay special attention to print quality and cleanliness. Submit two identical prints along with all the rough layouts as your final submission.

Size of the plate:

i. Serigraphy	30 cm x 20cm.
ii. Lithography	30 cm x 20cm.
iii. Etching & engraving	30 cm x 20cm.

• Instructions to decide the subjects for Graphic –Composition:

- The external and internal examiners jointly are to select/decide five subjects suitable for Graphic Composition (printmaking).
- Each subject should be so designed that the candidate may get a clear-cut idea of the subject however, any candidate can perceive a subject in his/her own way but graphic quality must be maintained in the composition.
- The examiners are free to select/decide the subjects, but these should be according to the standard of class XII and environment of the school/candidates.
- Some identified areas of the subjects for Graphic-Composition (Printmaking) are given below in which some more areas may be added, if needed:

- (i) Affairs of family, friends and daily life.
- (ii) Affairs of family professionals.
- (iii) Games & Sports Activities.
- (iv) Nature.
- (v) Fantasy.
- (vi) National, religious and cultural, historical and social events and celebrations.
- (vii) Historical monuments
- (viii) Folk and classical dances/theatres
- (ix) Traditional/ancient sculpture and painting
- (x) Relevant social issues

• Instructions to the examiners:

1. Candidates should be given one-hour break after first three hours.
2. Work of the candidates for
Part I (Making of graphic-print through Serigraphy/ Lithography/ Etching and Engraving)
Part II (Portfolio Assessment) is to be evaluated on the spot by the external and internal examiners jointly
3. Each work of parts I & II, after assessment, is to be marked as examined and duly signed by the external and internal examiners.

C. SCULPTURE (Subject Code 051)

Introduction

The Course in sculpture at second phase of Secondary stage as an elective subject is aimed at developing aesthetic sense of the students through the understanding of various important, well-known aspects and modes of visual art expression in India's rich cultural heritage from the period of Indus Valley to the present time. It encompasses also a wide range of practical exercises in making of various sculptures for developing their mental faculties of observation, imagination and creation and the physical and technical skills.

Objectives:

A) THEORY

Note: As the syllabus of Sculpture (Theory) is the same as that of Painting (Theory), its objectives are same.

B) PRACTICAL

The purpose of introducing practical exercises in sculpture is to help and enable students to create sculptures. All assignments should be designed to address issues such as volume, weight, the interplay of forms in space, etc., as opposed to rendering on a flat two-dimensional surface. Adequate technical skills should be provided, depending on the facilities available.

SCULPTURE THEORY

CLASS-XI

Theory Paper

Maximum Marks:30

Time allowed: 2 Hours

Unit wise weightage

Units	History of Indian Art	Marks
1	Pre-Historic rock paintings and art of Indus / Sindhu Saraswati Civilization (Indus valley Civilization) Buddhist, Jain and Hindu Art	15
2	Temple Sculptures, Bronzes and Artistic aspects of Indo-Islamic architecture	15

Note: The Syllabus of Sculpture (Theory) for Class XI is the same as that of Painting (Theory) for class XI given earlier.

SCULPTURE PRACTICAL CLASS–XI

Practical Paper
Time allowed:6 hours
Unit wise weightage

Maximum Marks:70

Part	Content	Marks
1	Modeling in Relief (in clay or plaster of Paris)	25
2	Modeling in Round (in clay or plaster of Paris)	25
3	Portfolio Assessment	20
	Total	70

Part 1:	Modeling in relief on given subjects from life and nature	
Part 2:	Modeling in round on given subjects from life and nature. Handling of clay and its techniques, pinching, coiling, rolling, etc.	
Part 3:	Portfolio Assessment	
a	Record the entire year's performance from sketch to design study of textures to finished product. (baking or use of plaster of Paris)	8 marks
b	Four selected pieces of works prepared during the course by the candidate	6 marks
c	Three selected pieces based on Indian Folk Art (Sculpture – Round or Relief)	6 marks

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

- Use of clay composition in hollow for baking.
- Modelling of simplified human figures, birds, animals and plants in relief and round. Geometrical shapes like cube, cone, cylinder, etc., and their composition in relief as an exercise.

Note:

1. The candidates should be given one hour-break after first three hours.
2. The timetable should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

SCULPTURE THEORY

Class XII

Theory Paper

Maximum Marks:30

Time allowed: 2 Hours

Unit wise weightage

Unit	Content	Marks
1	<ul style="list-style-type: none">• The Rajasthani School of Miniature Painting• Pahari School of Miniature Painting• The Mughal School of Miniature Painting• Deccan Schools of Miniature Painting	15
2	<ul style="list-style-type: none">• Indian National Flag• The Bengal School of Painting• The Modern Trends in Indian Art Paintings, Graphic Prints, Sculptures	15
		30

Note: The Syllabus of Sculpture (Theory) for Class XII is the same as that of Painting (Theory) for class XII given earlier.

SCULPTURE PRACTICAL

Class XII

Practical Paper

Maximum Marks:70 Marks

Time allowed: 6 hours. (3+3)

Unit wise Weightage

Unit	Content	Marks
1	Modeling in Relief (Clay and plaster of Paris)	25
2	Modeling in Round (clay and plaster of Paris)	25
3	Portfolio Assessment	
	a) Record of the entire year's performance from sketch to finish product.	8
	b) Six pieces of work prepared during the course	12
	Total	70

Note:

- a) One sculpture in relief (High Relief)
- b) One sculpture in relief (Low Relief)
- c) One Sculpture in (Round)
- d) One selected works of sculpture based on any Indian Folk Art
- e) One in their own style
- f) One clay composition in hollow for baking. Modelling of simplified human figures, birds,

animal's plants in relief and round. Geometrical shapes like cube, cone, cylinder, etc., and their composition in relief as an exercise in design study of textures.

g) Use of plaster of Paris.

h) These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

i) The candidates should be given one hour-break after first three hours.

j) The time table should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

GUIDELINES FOR EVALUATION OF PRACTICAL

Marking Scheme:

Part I: Modeling in Relief		
(i) Composition including emphasis on the subject	10	
(ii) Handling of media	05	25 Marks
(iii) Creative approach and overall impression	10	
Part II: Modeling in Round		
(i) Composition including emphasis on the subject	10	
(ii) Handling of media	05	25 Marks
(iii) Creative approach and overall impression	10	
Part III: Portfolio Assessment		20 Marks
(a) Record of the entire year's performance from sketch to finished product.	08	
(b) Six works of sculpture not less than 25 to 30 cm consisting of:	12	
(i) One sculpture in relief (High Relief)		
(ii) One sculpture in relief (Low Relief)		
(iii) One Sculpture in (Round)		
(iv) One selected works of sculpture based on any Indian Folk Art		
(v) One in their own style		
(vi) One clay composition in hollow for baking		

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

1. Format of the questions:

Part I: Modeling in Relief:

Make a sculpture in Relief (low/high) on any one of the following five subjects. The size should be within 25 to 30 cm. (horizontally or vertically) and about 4 cm. in thickness from the board.

(Note: Any five suitable subjects for "Modeling in Relief" are to be decided by the external and internal examiners jointly in accordance with the instructions and are to be mentioned here).

Part II: Modeling in Round:

Prepare a sculpture in round, in clay medium, on any one of the following five subjects. The height should be within 25 to 30 cm, horizontally or vertically.

Note: Any five suitable subjects for “Modeling in Round” are to be decided in accordance with the instructions and are to be mentioned here strictly just before the start of the examination for Part II.

2. Instructions to decide the subjects for Modeling in Relief and Round:

The examiners (Internal and External) are to select/decide five subjects suitable for modeling in relief and five subjects for modeling in round. The subjects for “Modeling in Round” are to be conveyed to the candidates strictly just before the start of the examination for Part II.

- i. Each subject should be so designed that the candidate may get a clear-cut idea of the subject, however, a candidate can perceive a subject in his/her own way. Distortion of human/animal forms may be allowed.
- ii. Choice of high or low relief should remain open to the candidates.
- iii. The examiners (Internal and External) are free to decide the subjects, but they should be according to the standard of class XII and environment of the school/candidates. Some identified areas of the subjects for Modeling in Relief and Round are given below in which some more areas may also be included:
 - a) Nature Study.
 - b) Design, natural, decorative, stylized and geometrical:
 - c) Family, friends and daily life.
 - d) Birds and animals.
 - e) Games and sports activities.
 - f) Religious, social and personal activities.
 - g) Cultural activities.
 - h) Ideas - Personal, social, local, provincial, national and international.

3. General instructions to the examiners:

- i. Candidates should be given one-hour break after first three hours.
- ii. Work of the candidates of Parts I (**Modeling in Relief**) Part II (**Modeling in Round**) and Part III (**Portfolio Assessment**) is to be evaluated on the spot by the external and internal examiners jointly.
- iii. Each work of Parts I, II and III, after assessment, is to be marked as examined and duly **signed/marked by the external and internal examiners.**

Note: The time table should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

D. APPLIED ART (COMMERCIAL ART) **(Subject Code 052)**

Introduction

The course in Applied Art (Commercial Art) at second phase of Secondary stage as an elective subject is aimed to develop aesthetic sense of the students through the understanding to various important, well-known aspects and modes of visual art expression in India's rich cultural heritage from the period of Indus Valley to the present time. It encompasses also a wide range of practical exercises in commercial art for developing their mental faculties of observation, imagination, creation and physical and technical skills.

Objectives

A) THEORY

Notes: As the syllabus of Applied Art-Commercial Art (Theory) is the same as that of Painting (Theory), its objectives are same.

B) PRACTICAL: The purpose of introducing practical exercises in Applied Art (Commercial Art) is to help and enable the students to develop professional competence in making Model Drawing Lettering, layout preparation and poster so that they can link their lives with productivity.

APPLIED ART (COMMERCIAL ART) THEORY **CLASS–XI**

Theory paper

Maximum Marks:30

Time allowed: 2 Hours

Unit wise Weightage

Unit	History of Indian Art	Marks
1	Pre-Historic rock paintings and art of Indus / Sindhu Saraswati Civilization (Indus valley Civilization) Buddhist, Jain and Hindu Art	15
2	Temple Sculptures, Bronzes and Artistic aspects of Indo-Islamic architecture	15

Note: The Syllabus of Applied Art-Commercial Art (Theory) for Class XI is the same as that of Painting (Theory) for Class XI given earlier.

APPLIED ART (COMMERCIAL ART) PRACTICALS
CLASS–XI

Practical Paper

Maximum Marks:70

Time allowed: 6 hours. (3+3)

Unit wise Weightage

Part		Marks
1	Drawing	25
2	Lettering and layout	25
3	Portfolio Assessment	20
	Total	70

Part 1	Drawing Drawing from Still-Life and Nature, medium- pencil monochrome/colour.	25 Marks
Part 2	(a) Lettering Study of lettering of Roman and Devanagari Scripts identification of some typefaces and their sizes	25 Marks
	(b) Layout Making a simple layout with lettering as the main component.	
Part 3	Portfolio Assessment (a) Record of entire year's performance from sketch to finished product	08 Marks
	(b) Four selected drawings in any media done during the year	06 Marks
	(c) Two selected works in chosen subject done during the year.	03 Marks
	(d) Two selected works based on Indian Folk Art	03 Marks

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

Note:

1. The candidates should be given one hour-break after first three hours.
2. The timetable should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

APPLIED ART (COMMERCIAL ART) THEORY CLASS– XII

Theory Paper

Maximum Marks: 30

Time: 2 Hours

Unit Wise Weightage

Unit	Content	Marks
1	<ul style="list-style-type: none"> The Rajasthani School of Miniature Painting Pahari School of Miniature Painting The Mughal School of Miniature Painting Deccan Schools of Miniature Painting 	15
2	<ul style="list-style-type: none"> Indian National Flag The Bengal School of Painting The Modern Trends in Indian Art Paintings, Graphic Prints, Sculptures 	15
		30

Note: The Syllabus of Applied Art-Commercial Art (Theory) for Class XII is the same as that of Painting (Theory) for Class XII given earlier.

APPLIED ART (COMMERCIAL ART) PRACTICAL CLASS–XII

Practical Paper

Maximum Marks:70

Time allowed: 6 hours. (3+3)

Unit Wise Weightage

Part		Marks
1	Illustration	25
2	Poster	25
3	Portfolio Assessment	20
	Total	70
Part 1	Illustration Study of techniques of illustration on given subjects and simple situations supported by drawing from life and outdoor sketching in different media suitable for printing.	25
Part 2	Poster Making a poster in 1/2 imp size with specified data and slogan on a given subject in two or three colours.	25

Part 3	Portfolio Assessment	
	a. Record of the years' performance from sketch to finished product.	08
	b. Eight selected drawings in any media done during the year including minimum of four illustrations	06
	c. Two selected posters in chosen subject.	04
	d. One selected work based on Indian Folk Art	01
	e. One selected work in your own style	01

These selected works, prepared by the candidate during the course and certified by the school authorities as the work done in the school, will be presented to the examiners for assessment.

Note:

1. The candidates should be given one hour-break after first three hours.
2. The timetable should be framed in such a way that it allows students to work continuously for a minimum of two periods in a row.

Guidelines for Evaluation of Practical Marking Scheme:

Part I: Illustrations

25 Marks

(i) Composition including quality of drawing	10
(ii) Emphasis on the subject with a specific situation	05
(iii) Reproducing quality and overall impression	10

Part II: Poster

25 Marks

(i) Layout and Lettering	10
(ii) Emphasis on the subject	05
(iii) Proper colour scheme, overall impression and reproducing quality	10

Part III Portfolio Assessment

20 Marks

a) Record of the entire year's performance from sketch to finished product.	08
b) Six selected drawings in any media done during the year including minimum of four illustrations	06
c) Two selected posters in chosen subject.	04
d) One selected work based on Indian Folk Art	01
e) One selected work in your own style	01

A. Format of the questions:

Part I : Illustration

Make an illustration in black and white in any colour media on any one of the following five subjects with a specific situation. Size of the illustration: 30 cm x 22 cm.

Note: Any five suitable subjects or illustration, decided by the external and internal examiners jointly in accordance with the instructions are to be mentioned here.

Part II: Poster

Prepare a poster-design with specified data and slogan in English/Hindi/Regional language, in three flat colours, on any one of the following five subjects. The designing of the poster should have balanced use of typography and illustration. Size of the Poster-design: 1/2 imp size.

B. Instructions to decide the subjects for illustration:

- i. The examiners (Internal and External) are to select/decide five suitable subjects.
- ii. Each subject should be given a specific situation, which is a main characteristic of an illustration.
- iii. Each subject should be so designed that the candidate may get a clear-cut idea of the subject and they can illustrate a specific situation based on given subject areas.
- iv. The examiners (Internal and External) are free to decide the subjects, but these should be according to the standard of the class XII and environment of the school/candidates.
- v. Some identified areas of the subjects for illustration are given below, in which some more area as may be added if needed.

Subject with a specific situation:

- a) Family and friends in daily life.
- b) Professionals/professions.
- c) Games and sports.
- d) Nature.
- e) National events and celebrations.
- f) Religious events and festivals.
- g) Culture-Dance, Drama, Music and Art.

C. Instructions to decide the subjects for Poster-design:

- i. The examiners (Internal and External) are to select/decide five subjects suitable for poster design.
- ii. Each subject should be given a specified data and slogan.
- iii. The data and slogan should be so framed/designed that the candidates may get a clear-cut idea of the subject.
- iv. The examiners (Internal and External) must give the subjects data and slogan according to the standard of Class XII and environment of the school/candidates.

Some identified areas for poster-design are given below, in which more areas/ subjects maybe added.

For Advertisement Mention:

- i. Excursion/Tourism
- ii. Cultural activities
- iii. Community and nature development
- iv. Ideas-Social, national and international
- v. Commercial products

Instructions to the examiners:

- Candidates should be given one-hour break after first three hours.
- Work of the candidates for Parts I (Illustrations)Part II (Poster) and Part III (Portfolio Assessment) is to be evaluated on the spot by the external and internal examiners jointly.
- Each work of parts I, II and III, after assessment, is to be marked as examined and signed by the external and internal examiners.

HINDUSTANI MUSIC - VOCAL

Subject Code - 034

Class XI-XII (2025-26)

Introduction

The course in Hindustani Music Vocal at Secondary and Senior Secondary level is being offered to the students for the holistic development of their personality. Inheriting the indigenous concept of Rasa theory proposed by Acharya Bharat Muni in his text "Natyashastra", Hindustani Classical Vocal music is based on Ragas and Talas as the key features and it distinguishes itself from any other music in the world, representing India's unique and rich cultural heritage. Hindustani Vocal Music, developed in North India, with its roots tracking back to the Vedic period, evolved significantly during the medieval era. Often known as a Raga music, various musical forms and singing styles have evolved in course of time in Hindustani Vocal music such as Dhrupad, Dhamar, Khayal, Tarana, Chaturang, Trivat as Classical Vocal forms and Thumri, Dadra, Tappa, Kajri, Chaiti etc. as Semi-classical forms. In due course of time many Gharanas (Music Schools) also evolved in Hindustani Vocal Music such as Gwalior, Agra, Jaipur, Kirana, Rampur, Sahasawan etc., which consisted of their individual characteristic style of singing, voice culture, singing texture, layakari and the use of various embellishments such as Gamak, Meend, Kan, Khatka, Murki etc., in different magnitude to unfold the nuances and aesthetics of the Ragas in these Classical and Semi-classical Vocal forms. Hindustani Vocal music is considered as one of the finest and foremost music around the globe today.

Objectives

- It is important to carry forward the rich heritage and tradition of Hindustani Classical Music to the next generation and to familiarize students with its rich history and diversity.
- To ensure the correct rendering of nuances of Hindustani Ragas, pedagogical interventions involving the indigenous, traditional face-to-face Guru-Shishya (teacher – student) style are incorporated.
- To ensure that students not only learn a vital aspect of Indian culture, but also, develop skills and qualities that benefit their overall growth and personality development.
- To utilize Music as a tool to help students deal with aggression and other age specific challenges.
- Music is very closely associated with many Science and Arts disciplines. The aim will also focus on making students aware of the interdisciplinary approaches in various musical concepts.

Learning Outcomes

- Understanding the concepts of Indian Classical Music.
- Ability to handle the accompanying instruments such as Tanpura and Harmonium.
- Efficiency to perform raga delineation in Dhrupad, Dhamar, Khayal and Tarana style of singing.
- Ability to understand different Talas (time cycles), rhythmic patterns and layakaris.
- Developing a scientific approach in all aspects through systematic training during the teaching – learning process.
- Understanding other disciplines and their relation to various aspects of Indian Classical Music.

HINDUSTANI MUSIC - VOCAL
Subject Code - 034
Class XI (2025-26)

Assessment Design

S.No	Component	Marks
A	Theory	30
B	Practical	70

Curriculum & Examination Structure

(A) Theory

Max. Marks 30

Time: 02 hours

1. Questions to be set with internal choice covering the entire syllabus

Sr. No.	Units	Marks
Unit 1		
1.1	Brief study of the following: Nada, Shruti, Swar, Saptak, Thaata, Jati, Laya, Tala	06
1.2	Brief study of the following: Margi- Desi Sangeet, Raga,	
Unit 2		
2.1	Brief History of the following Dhrupad, Khayal and Tarana	06
Unit 3		
3.1	Brief study of Musical Elements in Natya Shastra	06
3.2	Life sketch and contribution of Tansen, V.N. Bhatkhande and V.D. Paluskar	
Unit 4		
4.1	Description of prescribed Talas along with Tala Notation with Thah, Dugun and Chaugun Teentala Ektala Chautala	06
4.2	Knowledge of the Structure of Tanpura	
Unit 5		
5.1	Critical study of Prescribed Ragas. Recognizing Ragas from phrases of Swaras and elaborating them.	06
5.2	Writing in notation the compositions of prescribed Ragas • Bihag • Bhimpalasi • Bhairavi	

(B) Practical**Max. Marks 70****(i) Topics**

1.	One Vilambit Khayal with simple elaborations and few tanas in any one of the prescribed Ragas.
2.	One Drut Khayal with simple elaboration and few tanas in the following Ragas: Bihag, Bhairavi and Bhimpalasi.
3.	One Dhrupad with Dugun in any one of the prescribed Ragas.
4.	One Devotional Song.
5.	Ability to recognize the prescribed Ragas from the phrases of Swaras rendered by the Examiner.
6.	Recitation of the Thekas of Teentala, Chautala and Ektala with Dugun and Chaugun, keeping Tala with hand beats.

(ii) Distribution of Marks**Time: 20-25 Minutes for each candidate**

1. Examiners are requested to ask the questions directly related to the syllabus.
2. Marks should be awarded in accordance with the marking scheme.

S. No.	Value Points	Marks
1.	Choice Raga (Vilambit & Drut Khyal) any one of the following: <ul style="list-style-type: none"> • Bihag • Bhimpalasi • Bhairavi 	15
2.	Examiner's Choice of Ragas	12
3.	1 Dhrupad with Dugun in any one of the prescribed Ragas	14
4.	Devotional Song.	06
5.	Ability to recognize the prescribed ragas from the phrases of swaras rendered by the examiner	08
6.	Recitation of Thekas of prescribed Talas with Thah, Dugun, Chaugun: <ul style="list-style-type: none"> • Teentala • Ektala • Chautala 	05+05=10
7.	Practical File: <ul style="list-style-type: none"> • Analyse the style of any present day artis of classical vocal music. • Description and notation of all compositions in prescribed Ragas. • Description and Tala Notation with layakaris of all prescribed. 	05

* Teachers will refer to the distribution of marks while examining the candidate for practical examination

HINDUSTANI MUSIC - VOCAL
(Subject Code - 034)
Class XII (2025-26)

Assessment Design

S.No	Component	Marks
A	Theory	30
B	Practical	70

Curriculum & Examination Structure

(A) Theory

Max. Marks 30

Time: 02 hours

1. Questions to be set with internal choice covering the entire syllabus

S.No.	Units	Marks
Unit 1		
1.1	Brief study of the following: - Alankar, Kan, Meend, Khatka, Murki, Gamak.	06
1.2	Brief study of the following Gram, Murchhana, Alap, Tana.	
Unit 2		
		06
2.1	Historical development of Time Theory of Ragas	
Unit 3		
3.1	Detail study of Sangeet Ratnakar the following: Sangeet Parijat	06
3.2	Life sketch and Contribution of Faiyaz Khan, Bade Ghulam Ali Khan, Krishna Krishna Rao, Shankar Pandit	
Unit 4		
4.1	Description of Prescribed Talas along with Tala Notation with Thah, Dugun, Tigun and Chaugun Jhaptala, Rupak, Dhamar	06
4.2	Tuning of Tanpura	
Unit 5		
5.1	Critical study of Prescribed Ragas along with recognizing the Ragas from phrases of Swaras and elaborating them.	06
5.2	Writing in Notation the Compositions of Prescribed Ragas: Bhairav, Bageshri, Malkauns	

(i) Topics

1.	One Vilambit Khayal with simple elaborations and few Tanas in any two of the prescribed Ragas.
2.	One Drut Khayal with simple elaborations and few tanas in the following Ragas-Bhairav, Bageshri and Malkauns.
3.	One Tarana and one Dhamar with dugun and chaugun in any one of the prescribed Ragas.
4.	Ability to recognize the Ragas from the Phrases of Swaras rendered by the examiner.
5.	Recitation of the Thekas of Jhaptala, Rupak, and Dhamar with Dugun and Chaugun, keeping tala with handbeats.
6.	Tuning of Tanpura.

(ii) Distribution of Marks**Time: 25-30 Minutes for each candidate**

1. Examiners are requested to ask the questions directly related to the syllabus.

S.No.	Value Points	Marks
1.	Choice Raga (Vilambit and Drut Khayal) with simple elaborations in prescribed Ragas (anyone): <ul style="list-style-type: none"> • Bhairav • Bageshri • Malkauns 	10+8=18
2.	Examiner's Choice of Ragas	10
3.	One Tarana and one Dhamar with Dugun and Chaugun	8+8=16
6.	Identification of Ragas	06
7.	Reciting the Thekas of Prescribed Talas with handbeats with Thah and Dugun and Chaugun: <ul style="list-style-type: none"> • Jhaptala • Rupak • Dhamar 	5+5=10
8.	Tuning of Tanpura and questions regarding it	5
9.	Practical file	5

* External Examiner will refer to the distribution of marks while examining the candidate for practical examination