

SYLLABUS

Session - 2024-25

Class - XII

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Class : XII

Subject : English Core

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.

Reading Skills

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 18 Marks

Creative Writing Skills

II. Creative Writing Skills

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 40 Marks

Literature Text Book and Supplementary Reading Text

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

Question Paper Design Code No. 301

2024-25

English CORE XII

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 Sills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriacy of 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

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.

Classes XI-XII Total Marks: 20 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:

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

A suggestive rubric is given below:

	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 Frequent repetition and/or self-correction this is all right in informal conversation Links only basic sentences; breakdown of coherence 	<ul style="list-style-type: none"> Usually fluent; produces simple speech fluently, but loses coherence in complex communication Often hesitates and/or resorts to slow speech 	<ul style="list-style-type: none"> Is willing to speak at length, however repetition is noticeable Hesitates and/or self-corrects; occasionally loses coherence 	<ul style="list-style-type: none"> Speaks without noticeable effort, with a little repetition Demonstrates hesitation to find words or use correct grammatical structures and/or self-correction 	<ul style="list-style-type: none"> Speaks fluently almost with no repetition & minimal hesitation Develops topic fully & coherently
	evident	<ul style="list-style-type: none"> speech Topics partly developed; not always concluded logically 	<ul style="list-style-type: none"> Topics developed, but usually not logically concluded 	<ul style="list-style-type: none"> Topics not fully developed to merit. 	
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 expressions No grammatical errors

I. 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 in 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, e.g. 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.

IV. 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.

V. 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

Periodic Assessment

One Paper	1 hour	Marks:25
Section	Area of Learning	Marks specified
Part A	Reading Unseen Passages	5
Part B	Writing Skills	5
C Textual Questions-Extracts Poetry & Prose		2+2 =6
Long answers Short Answers		3+ 3=6

Annual Assessment

One Paper	3 hours	Marks: 80
Section	Area of Learning	Marks specified
Part A	Reading Unseen Passages (2)	12+10 = 22
Part B	Advanced Writing Skills	4+4+5+5=18
Textual Questions		
	Multiple Choice from Literature (based on prose, poetry extracts Flamingo & Vistas)	3+3+5+5=16
	Literature Reader- Flamingo	10+4+5+5 =24
	Suppl. Reader- Vistas	

Unit wise distribution of syllabus

Unit I (APRIL)

L. Reader : Poem- My mother at 66

(Key Words- ashen, corpse, sprinting, spilling, wan, ache)

Ch.1- The Last Lesson

(Key Words-bustle, unison, solemn, reproach, enslaved, rapt, logical, primer, gesture, thunderclap, apprentice)

S. Reader : Ch 1 The Third Level

(Key words- futuristic, intersection, derby, premium, spittoons, ducked Arched, protectors, apparent, illogicality)

Writing Skills : Notice Writing

Activity (21st Century Skill ,Critical thinking and Communication skills)

Practice of listening skill

Speech on “ Preserving Language Preserves Identity”

DRR Activity : Discussion based on post Franco- Prussian war

Unit II (MAY)

L. Reader : Ch.2- Lost Spring

(Key words- scrounging, glibly, bleak, perpetual, periphery, metaphorically, squatters, unkempt, sanctity, apathy, vicious)

S. Reader : Ch.2- The Tiger King

(Key Words-indomitable, transfixed, stupefaction, incoherent, brandishing, catastrophic, imperative, incredible, carcass, summoned, supplication)

Writing Skills : Letter writing: letter to editor

Reading Skills : Practice of Unseen Passage & Note

Activity (21st Century Skill, Creativity , Thinking skills)

(Card Making on Mother's Day (Art integrated activity))

Unit III (MAY)

L. Reader : Poem- Keeping Quite

(Key words- exotic, inactivity, truck, interrupt)

Ch.3- Deep Water

(Key Words-phobia, treacherous, misadventure, aversion, summoned, oblivion, paralyzed, panicky, nightmare, terror) handicap, bruiser, haunting,

Writing Skills : Article writing, Job Applications

Reading Skills : Practice of Unseen Passage and Note Making

Activity (21st Century Skill, Communication skills and Thinking skills)

Practice of listening skill

Unit IV (JULY)

L. Reader : Chapter – 4 The Rattrap

(Key words-plods, incredulous, forge, valet, jagged)

S. Reader : Ch.3- Journey to the end of the world

(Key Words-ecosphere, immensity, checkpoints, thrived, prospect, ubiquitous, calving, consecrates, unmitigated, pristine, foster, assimilate)

Writing Skills : Formal and informal invitation and replies, Notice writing.

Reading Skills : Practice of unseen passage

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Creativity and Information Literacy)

To make PPT on the changing landscape of India in comparison to Antarctica

Unit V (JULY-AUGUST)

L. Reader : Chapter – 5 Indigo

(Key words- delegates, emaciated, tenacity, chided, vehemently)

S. Reader : Ch 4 – The Enemy

(Key words- stupor, resolution, strewed, repulsion, conviction, retching, ruthless, assassins, stubbornness, execution, prejudice)

Writing Skills : Report Writing, Formal and Informal Invitation and replies.

Reading Skills : Practice of Comprehension Passage

Activity (21st Century Skill Communication and Creativity)

Practice of Speaking skill (Expressing opinion)

“If you were in Dr. Sadao's place what would you have done?”

Unit VI (AUGUST)

L. Reader : Ch 6 Poets & Pancakes

(key words : incandescent, hierarchy, ignominy, affluent, covertly, compunction, conjugal, pedestal, incongruity)

Writing skills: Article writing, Letter to the editor.

Activity (21st Century Skill, Critical thinking and Communication skills)

Practice of Listening & speaking skill, Project work to be taken up

Unit VII (OCTOBER)

L. Reader : Poem – A Thing of Beauty

(Key words-nothingness, dearth, rills, grandeur, brink)

S. Reader : Ch 6 On the Face of it

(Key words- startled, whispered, peculiar, draft, steady)

Writing Skill : Report Writing, Formal Letter writing

Reading skill: Practice of unseen passage

Activity (21st Century Skills of Media and technology literacy)

Practice of listening skill and Report writing on science symposium in your school

Unit VIII (NOVEMBER)

L. Reader : Ch.7 The Interview

(Key words- extravagant lionized, condemnatory, perpetrated, formidable, aesthetics, hypothesis, dissertation, seminal, spectacularly)

Poem-A Roadside Stand

(Keywords: pathetically, squeal, swarm)

S. Reader : Chapter 8 Memories of childhood.

(Key Words : belfry, spied, whither, peered, indignities, braids, tether, harangue)

Writing Skill : Formal Letter Writing , Article Writing.

Reading Skills:Practice of Unseen Passage

Activity (21st Century Skills of Critical thinking skills and Creativity) Making of Project

Unit IX (NOVEMBER)

L. Reader : Poem - Aunt Jennifer's Tigers

(Key words : Prance, Chivalric, Fluttering, Terrified, Ordeals, Panel,

Sleek)

Chapter – 8 Going Places

(Key words-earmarked, melancholy, instinctively, chastened, reverently, grimaced, despondent, envisage, lumbering)

Writing Skill: Formal and Informal Letter Writing, Article writing

Activity (21st Century Skills of Collaboration, Communication and Technology literacy) Practice of listening skill

Unit X (NOVEMBER) Revision of Unit 1 &2

Writing Skill: Report Writing, Article Writing ,

Reading Skill: Practice of Unseen Passage

Activity (21st Century Skills of Communication ,Media and technology literacy) Practice of Listening & speaking skill

Submission of Project Report

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

Subject : Mathematics

(Code No.- 041)

UNIT WISE DIVISION OF SYLLABUS TO BE FOLLOWED IN SCHOOL

UNIT No.	CHAPTERS	No. of Periods	Marks
I	CH 1-RELATIONS AND FUNCTIONS CH 2-INVERSE TRIGONOMETRIC FUNCTIONS	15+15=30	8
II	CH 3- MATRICES CH 4- DETERMINANTS	25+25=50	10
III	CH 5- CONTINUITY AND DIFFERENTIABILITY	20+10+20+15+15=80	35
IV	CH 6-APPLICATIONS OF DERIVATIVES		
V	CH 7- INTEGRALS		
VI	CH 8- APPLICATIONS OF INTEGRALS		
VII	CH 9-DIFFERENTIAL EQUATIONS CH 10-VECTORS	15	14
VIII	CH 11 THREE DIMENSIONAL GEOMETRY	15	
IX	CH 12- LINEAR PROGRAMMING	20	05
X	CH 13- PROBABILITY	30	08
TOTAL		240	80
	INTERNAL ASSESSMENT		20

UNIT I

CHAPTER 1: Relations and Functions (April)

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

CHAPTER 2 Inverse Trigonometric Functions (April)

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

Targeted Skills: Understanding, Analytical and Calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT II

CHAPTER 3 Matrices (May)

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).

CHAPTER 4 Determinants (May)

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. Targeted Skills: Understanding, Analyzing, applying and Calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT III

CHAPTER 5 Continuity and Differentiability (May & July)

Continuity and differentiability, chain rule, derivative of inverse trigonometric functions, \sin^{-1} , \cos^{-1} and \tan^{-1} , 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.

Targeted Skills: Understanding, remembering, Analyzing, applying and Calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT IV

CHAPTER 6 Applications of Derivatives (July)

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).

Targeted Skills: Understanding, remembering, Analyzing, applying and Calculation

21st Century Skills-Critical Thinking and Problem solving

UNIT V

CHAPTER 7 Integrals(August)

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.

Targeted Skills: Understanding, remembering, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT VI

CHAPTER 8 Applications of integrals (August)

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

Targeted Skills: Understanding, remembering, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT VII

CHAPTER 9 Differential equations (October)

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:

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

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

CHAPTER 10 Vectors (October)

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.

Targeted Skills: Understanding, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT VIII

CHAPTER 11 Three dimensional geometry (October & November)

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.

Targeted Skills: Understanding, remembering, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT IX

CHAPTER 12 Linear Programming (November)

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).

Targeted Skills: Understanding, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

UNIT X

CHAPTER 13 Probability (November)

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean of random variable.

Targeted Skills: Understanding, remembering, Analyzing, applying & calculation

21st Century Skills- Critical Thinking and Problem solving

MATH LAB ACTIVITIES

ACTIVITY 1 To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is symmetric but neither reflexive nor transitive.

ACTIVITY 2 To demonstrate a function which is not one-one but is onto.

ACTIVITY 3 To demonstrate a function which is one-one but not onto.

ACTIVITY 4 To draw the graph of, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$).

ACTIVITY 5 To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point.

ACTIVITY 6 To understand the concepts of absolute maximum and minimum values of a function in a given closed interval through its graph.

ACTIVITY 7 To understand the concepts of decreasing and increasing functions.

ACTIVITY 8 To verify geometrically that $\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b}$

ACTIVITY 9 To verify that angle in a semi-circle is a right angle, using vector method.

ACTIVITY 10 To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.

TENTATIVE ASSESSMENT SCHEDULE

ASSESSMENT	TIME	SYLLABUS	TOTAL MARKS	BLUE PRINT		
				MARKS	NO. OF QUESTIONS	TOTAL MARKS
UNIT TEST I	MAY 2024	UNIT I	25			
UNIT TEST II	JULY-AUGUST 2024	UNIT II & III	25	1	6	6
				2	2	4
				3	2	6
UNIT TEST III	NOVEMBER-DECEMBER 2024	UNIT VI & VII	25	4	1	4
				5	1	5
				TOTAL	12	25
TERMINAL EXAMS	SEPT 2024 & JAN-FEB 2025		80	MARKS	NO. OF QUESTIONS	TOTAL MARKS
				1	20	20
				2	5	10
				3	6	18
				4	3	12
				5	4	20
				TOTAL	38	80

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.

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> record of the same may be kept by the student. Any 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 Part I - Textbook for Class XII, NCERT Publication
- 2) Mathematics Part II - Textbook for Class XII, NCERT Publication
- 3) Mathematics Exemplar Problem for Class XII, Published by NCERT
- 4) Mathematics Lab Manual class XII, published by NCERT

Subject : Physics

Senior Secondary stage of school education is a stage of transition from general education to discipline-based focus on curriculum. The present updated syllabus keeps in view the rigour and depth of disciplinary approach as well as the comprehension level of learners. Due care has also been taken that the syllabus is comparable to the international standards. Salient features of the syllabus include:

Emphasis on basic conceptual understanding of the content.

Emphasis on use of SI units, symbols, nomenclature of physical quantities and formulations as per international standards.

Providing logical sequencing of units of the subject matter and proper placement of concepts with their linkage for better learning.

Reducing the curriculum load by eliminating overlapping of concepts/content within the discipline and other disciplines.

Promotion of process-skills, problem-solving abilities and applications of Physics concepts.

Besides, the syllabus also attempts to -

- Strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
- Expose the learners to different processes used in Physics-related industrial and technological applications.
- Develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.
- Promote problem solving abilities and creative thinking in learners.

- Develop conceptual competence in the learners and make them realize and appreciate the interface of Physics with other disciplines.

QUESTION PAPER DESIGN

Theory (Class: XII)

Maximum Marks:70 Duration:3hrs.

SNo.	TypologyofQuestions	Total Marks	Approximate Percentage
1	<p>Remembering:Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.</p> <p>Understanding:Demonstrateunderstandingoffactsand ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.</p>	27	38%
2	<p>Applying:Solveproblemstonsituationsbyapplying acquired knowledge, facts, techniques and rules in adifferentway.</p>	22	32%
3	<p>Analysing:Examine and breakinformationintopartsby identifying motives or causes. Make inferences and find evidence to support generalizations</p> <p>Evaluating:Present and defend opinions bymakingjudgmentsabout 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 proposingalternativesolutions.</p>	21	30%
	TotalMarks	70	100
	Practical	30	
	GrossTotal	100	

Note: The above template is only a sample. Suitable internal variations may be made for generating similar templates keeping the over all weight age to different form of questions and typology of questions same.

PHYSICS (CODE NO. 042)
COURSE STRUCTURE
CLASS XII (2024-25)
PHYSICS (THEORY)

Time:3hrs.

Max Marks:70

		No. of Periods	Marks
Unit-I	Electrostatics	26	16
	Chapter-1:Electric Charges and Fields		
	Chapter-2:Electrostatic Potential and Capacitance		
Unit-II	Current Electricity	18	
	Chapter-3:Current Electricity		
Unit-III	Magnetic Effects of Current and Magnetism	25	17
	Chapter-4:Moving Charges and Magnetism		
	Chapter-5:Magnetism and Matter		
Unit-IV	Electromagnetic Induction and Alternating Currents	24	
	Chapter-6:Electromagnetic Induction		
	Chapter-7:Alternating Current		
Unit-V	Electromagnetic Waves	04	18
	Chapter-8:Electromagnetic Waves		
Unit-VI	Optics	30	
	Chapter-9:Ray Optics and Optical Instruments		
Unit-VII	Chapter-10:Wave Optics		
Unit-VIII	Dual Nature of Radiation and Matter	8	12
	Chapter-11:Dual Nature of Radiation and Matter		
Unit-IX	Atoms and Nuclei	15	
	Chapter-12:Atoms		
	Chapter-13:Nuclei		
Unit-X	Electronic Devices	10	7
	Chapter-14:Semiconductor Electronics: Materials, Devices and Simple Circuits		
Total		160	70

UNIT TEST:**DIVISION OF MARKS (25 marks)**

QUESTIONS	MARK/MARKS	TOTAL MARKS
4	1	4
3	2	6
2	3	6
1	4	4
1	5	5
		TOTAL =25

ASSESSMENT: TERMINAL EXAMINATION**DIVISION OF MARKS:(70 marks)**

QUESTIONS	MARK/MARKS	TOTAL MARKS
16	1	16
5	2	10
7	3	21
2	4	8
3	5	15
		TOTAL = 70

Unit I: Electrostatics**26 Periods****Chapter–1: Electric Charges and Fields (APRIL)**

Electric charges, Conservation of charge, Coulomb's law-force between two point charges, forces between multiple charges; super position principle and continuous charge distribution.

Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field.

Electric flux, statement of Gauss's theorem and its applications to find

field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).

Chapter–2: Electrostatic Potential and Capacitance (APRIL-MAY)

Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field.

Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only).

Targeted Skills: Understanding, Analytical and Calculation

PRACTICAL 1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.

ACTIVITY 1. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.

ASSESSMENT UNIT TEST-1 (25 MARKS)

TIME- MAY, 2024

SYLLABUS-UNIT I (Unit I : Electrostatics)

Until I : Current Electricity

18 Periods

Chapter–3: Current Electricity (JULY)

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.

Targeted Skills- Understanding, Analytical, Application and Calculation.

PRACTICAL 2. To find resistance of a given wire / standard resistor using metre bridge.

ACTIVITY 2. To assemble the components of a given electrical circuit

Unit III : Magnetic Effects of Current and Magnetism 25Periods

Chapter–4: Moving Charges and Magnetism (JULY-AUGUST)

Concept of magnetic field, Oersted's experiment.

Biot-Savart law and its application to current carrying circular loop.

Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields.

Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and

conversion to ammeter and voltmeter.

Chapter–5: Magnetism and Matter (AUGUST)

Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines.

Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.

Targeted Skills- Understanding, Analytical, Application and Calculation.

PRACTICAL 3. To verify the laws of combination (series) of resistances using a metre bridge. OR

To verify the laws of combination (parallel) of resistances using a metre bridge.

ACTIVITY 3. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

ASSESSMENT UNIT TEST-2 (25 MARKS)

TIME- JULY-AUGUST, 2024

SYLLABUS- 2 UNITS

UNIT II- Current Electricity

UNIT III- Magnetic Effects of Current and Magnetism

Unit IV: Electromagnetic Induction and Alternating Currents

24 Periods

Chapter–6: Electromagnetic Induction (AUGUST)

Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction

Chapter–7: Alternating Current (AUGUST-SEPTEMBER)

Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.

Targeted Skills- Understanding, Analytical, Application and Calculation.

PRACTICAL: 4 To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.

Unit V: Electro magnetic waves

04 Periods

Chapter–8: Electromagnetic Waves (SEPTEMBER)

Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only).

Electromagnetic spectrum (radiowaves, microwaves, infrared, visible, ultraviolet, X-rays, gammarays) including elementary facts about their uses.

Targeted Skills- Understanding, Analytical, Application and Calculation

PRACTICAL: 5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. OR

To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.

ACTIVITY 4: To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.

ASSESSMENT TERMINAL EXAMINATION (70 marks)

TIME- SEPTEMBER, 2024

SYLLABUS- 5 UNITS

UNIT I. Electro statics

UNIT II. Current Electricity

UNIT III. Magnetic Effects of Current and Magnetism

UNIT IV. Electromagnetic Induction and Alternating Currents

UNIT V. Electromagnetic waves

Unit VI : Optics

30 Periods

Chapter–9: Ray Optics and Optical Instruments (OCTOBER)

Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula,

magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism.

Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.

PRACTICAL: 6. To find the value of v for different values of u in case of a concave mirror and to find the focal length

ACTIVITY 5: To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.

Unit VII: Chapter–10: Wave Optics (OCTOBER)

Waveoptics: Wave front and Huygen's principle, reflection and refraction of plane waveata plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young, double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light diffraction due to a single slit, width of central maxima (qualitative treatment only)

Targeted Skills- Understanding, Analytical, Application and Calculation

PRACTICAL: 7. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.

ACTIVITY 6: To observe diffraction of light due to a thin slit.

Unit VIII : Dual Nature of Radiation and Matter 08 Periods

Chapter–11: Dual Nature of Radiation and Matter (OCT-NOV)

Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light.

Experimental study of photoelectric effect

Matter waves-wave nature of particles, de-Broglie relation.

Targeted Skills-Understanding, Analytical, and Application
PRACTICAL: 8. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.

ASSESSMENT UNIT TEST-3 (25 MARKS)

TIME- NOVEMBER, 2024

SYLLABUS- 3 UNITS

UNIT-VI. Ray Optics

UNIT-VII. Wave Optics

UNIT-VIII. Dual Nature of Radiation and Matter

Unit IX : Atoms and Nuclei

15 Periods

Chapter–12: Atoms (NOVEMBER)

Alpha-particles scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of n th possible orbit, velocity and energy of electron in n 'th orbit, hydrogen line spectra (qualitative treatment only).

Chapter–13: Nuclei (NOVEMBER-DECEMBER)

Composition and size of nucleus, nuclear force

Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.

PRACTICAL: 9. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.

Unit X: Electronic Devices

10 Periods

Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits (DECEMBER)

Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors - p and n type, p-n junction

Semiconductor diode-I-V characteristics in forward and reverse bias, application of junction diode - diodes as rectifier.

PRACTICAL 10. To find the focal length of a convex mirror, using a convex lens.

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

PREBOARD 1/ CBT (CONFIDENCE BUILDING TEST) –DECEMBER 2024

PREBOARD 2- JANUARY 2024

ASSESSMENT PREBOARD EXAMINATION (70 marks)

TIME- DECEMBER, JANUARY 2024

SYLLABUS- 10 UNITS

UNIT I. Electrostatics

UNIT II. Current Electricity

UNIT III. Magnetic Effects of Current and Magnetism

UNIT IV. Electromagnetic Induction and Alternating Currents

UNIT V. Electromagnetic waves

UNIT-VI. Ray Optics and Optical instruments

UNIT-VII. Wave Optics

UNIT-VIII. Dual Nature of Radiation and Matter

Unit -IX: Atoms and Nuclei

Unit- X: Electronic Devices

FINAL PRACTICALS AISSCE FEBRUARY 2024

PRACTICALS

Total Periods 60

There cord to be submitted by the students at the time of their annual examination has to include:

Record of at least 8 Experiments [with 4 from each section], to be performed by the students.

Record of atleast 6 Activities [with 3 each from section A and section B], to be performed by the students.

The Report of the project carried out by the students.

Suggestive projects: Investigatory or any other working project topic – JUNE 2024

Suggested Investigatory Projects

1. To study various factors on which the internal resistance / EMF of a cell depends.
2. To study the variations in current flowing a circuit containing an LDR because of variation in
 - (a) the power of the in candescent lamp, use to 'illuminate' the LDR (keeping all the lampsata fixed distance)
 - (b) the distance of an in candes scent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equipconvex lens (made from a glass of know refractive index) and an adjustable object needle.
4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of tours in the secondary coil and primary coil of a self-designed transformer.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hellow prism filled one by one with different trans parents fluids.
6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with are sistor/(bulb) in a circuit fedup by an A.C. source of a adjustable

frequency.

8. To study the earth's magnetic field using a compass needle bar magnetic fields lines and tangential vanometer.

Evaluation Scheme (Practicals)

Max. Marks : 30

Time 3 hours

Two experiments one from each section	7+7Marks
Practical record [experiments and activities]	5Marks
One activity from any section	3Marks
Investigatory Project	3Marks
Viva on experiments, activities and project	5Marks
Total	30marks

Prescribed Books:

1. Physics, Class XII, Part -I and II, Published by NCERT.
2. Laboratory Manual of Physics for class XII Published by NCERT.
3. The list of other related books and manuals brought out by NCERT (consider multimedia also).

Subject : Chemistry

Prescribed Books:

1. Chemistry Part -I, Class-XII, Published by NCERT.
2. Chemistry Part -II, Class-XII, Published by NCERT.

Rationale

Higher Secondary is the most crucial stage of school education because at this juncture specialized discipline based, content -oriented courses are introduced. Students reach this stage after 10 years of general education and opt for Chemistry with a purpose of pursuing their career in basic sciences or professional courses like medicine, engineering, technology and study courses in applied areas of science and technology at tertiary level. Therefore, there is a need to provide learners with sufficient conceptual background of Chemistry, which will make them competent to meet the challenges of academic and professional courses after the senior secondary stage.

The new and updated curriculum is based on disciplinary approach with rigour and depth taking care that the syllabus is not heavy and at the same time it is comparable to the international level. The knowledge related to the subject of Chemistry has undergone tremendous changes during the past one decade. Many new areas like synthetic materials, bio -molecules, natural resources, industrial chemistry are coming in a big way and deserve to be an integral part of chemistry syllabus at senior secondary stage. At international level, new formulations and nomenclature of elements and compounds, symbols and units of physical quantities floated by scientific bodies like IUPAC and CGPM are of immense importance and need to be incorporated in the updated syllabus. The revised syllabus takes care of all

these aspects. Greater emphasis has been laid on use of new nomenclature, symbols and formulations, teaching of fundamental concepts, application of concepts in chemistry to industry/ technology, logical sequencing of units, removal of obsolete content and repetition, etc.

OBJECTIVES

The broad objectives of teaching Chemistry at Senior Secondary Stage are:

- promote understanding of basic facts and concepts in chemistry while retaining the excitement of chemistry.
- make students capable of studying chemistry in academic and professional courses (such as medicine, engineering, technology) at tertiary level.
- expose the students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of chemical sciences and technology.
- equip students to face various challenges related to health, nutrition, environment, population, weather, industries and agriculture.
- develop problem solving skills in students.
- expose the students to different processes used in industries and their technological applications.
- apprise students with interface of chemistry with other disciplines of science such as physics, biology, geology, engineering etc.
- acquaint students with different aspects of chemistry used in daily life.
- develop an interest in students to study chemistry as a discipline.
- integrate life skills and values in the context of chemistry.

COURSE STRUCTURE
CLASS XII (2024-25) (THEORY)

S.No.	Title	No. of Periods	Marks
1	Solutions	10	7
2	Electrochemistry	12	9
3	Chemical Kinetics	10	7
4	d -and f -Block Elements	12	7
5	Coordination Compounds	12	7
6	Haloalkanes and Haloarenes	10	6
7	Alcohols, Phenols and Ethers	10	6
8	Aldehydes, Ketones and Carboxylic Acid	10	8
9	Amines	10	6
10	Biomolecules	12	7
	Total		70

TENTATIVE ASSESSMENT SCHEDULE: 2024-25

SR. NO.	ASSESSMENT	MARKS	TIME PERIOD	SYLLABUS
1	UNIT TEST - 1	25	MAY	UNIT: 1
2	UNIT TEST - 2	25	JULY-AUGUST	UNITS: 2 & 3
3	TERMINAL	70	SEPTEMBER	UNITS: 1 - 5
4	UNIT TEST - 3	25	NOVEMBER	UNITS: 6 & 7
5	CONFIDENCE BUILDING TEST	70	DECEMBER	UNITS: 6-10
6	PRE-BOARD	70	JANUARY	UNITS: 1 - 10
7	ANNUAL EXAM*	70	FEBRUARY-MARCH	UNITS: 1 - 10

***ANNUAL EXAMINATION AS PER THE DATESHEET GIVEN BY CBSE**

DIVISION OF MARKS: UNIT TEST (M.M.: 25)

DIVISION OF MARKS:

QUESTIONS	MARK/MARKS	TOTAL MARKS
4	1	4
3	2	6
2	3	6
1	4	4
1	5	5
		25

DIVISION OF MARKS: TERMINAL ANNUAL EXAMINATION (M.M.: 70)

TIME: 3 HRS.

TERMINAL EXAMINATION-UNITS 1 TO 5

PRE-BOARD EXAMINATION-UNITS 1 TO 10

DIVISION OF MARKS:

QUESTIONS	MARK/MARKS	TOTAL MARKS
16	1	16
5	2	10
7	3	21
2	4	08
3	5	15
		70

QUESTION PAPER DESIGN CLASS – XII (2024-25)

S.No	Domains	Marks	%
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.	28	40
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	21	30
3	Analyzing, 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, the 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.	21	30

Unit I: Solutions (April)

Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.

KEY WORDS- Osmotic pressure , Depression of freezing point ,Elevation of boiling point Azeotropes, Raoult's law , Henry's Law , Normality , Molarity , Molality, Mole fraction, ideal and non-ideal solution, colligative property, molal elevation constant or ebullioscopic constant, molal depression constant or molal cryoscopic constant., endo-osmosis, exo- osmosis,

isotonic solutions.

Activity: Dissolve samples of solute in a suitable solvent keeping in view solute solvent interactions.

Targeted Skills: Understanding, analytical and reasoning skills.

Practical: Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of Ferrous Ammonium Sulphate

(Students will be required to prepare standard solutions by weighing themselves)

Practical- 21st century skills that can be useful for practicals:

Skills like observational and experimental were developed in the students and values like division of labor and teamwork .

Unit II (MAY)

Electrochemistry

Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.

KEY WORDS : Cathodic protection, Molar conductivity, Electro chemical series, Equivalent conductance, Specific conductance. strong and weak electrolytes, Electrochemical cell, Electrolytic cell, conductance, specific conductance.

Activity: Plotting graphs between molar conductance and concentration.

Targeted Skills: Understanding, analytical and reasoning skills.

Practical: Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of Oxalic acid

(Students will be required to prepare standard solutions by weighing themselves)

Practical- 21st century skills that can be useful for practicals:

Scientific reasoning: Improves critical thinking, problem-solving, and decision-making skills

UNIT III:(JULY)

Chemical Kinetics

Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.

KEY WORDS :Differential rate law, Integrated rate equation ,The rate law, Rate determining step, Activated complex , Activation energy , Half- life of a reaction Order of a reaction, Molecularity , Rate constant, threshold energy, law of mass action.

Activity: Differentiate between the decaying of fruits in different conditions (temperature)

Targeted Skills -Analytical skill, Observational, Critical thinking

Practical:

- (a) Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and Hydrochloric acid.
- (b) Study of reaction rates of any one of the following:
 - (i) Reaction of Iodide ion with Hydrogen Peroxide at room temperature using different concentrations of Iodide ions.
 - (ii) Reaction between Potassium Iodate, (KIO_3) and Sodium Sulphite: (Na_2SO_3) using starch solution as an indicator (clock reaction).

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skill.

UNIT IV:(AUGUST)

"d" and "f" Block Elements

General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$.

Lanthanoids –

Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences.

Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids.

KEY WORDS- Magnetic moment, Reducing agent, oxo anions, Amphoteric nature, Disproportionation reaction, Interstitial compounds, Enthalpies of atomization, Lanthanoid contraction, Baeyer's reagent, coinage metals.

Activity: The Students will perform the following identifying tests under qualitative analysis to study the properties of the compounds. (i) Chromyl chloride test (ii) Nessler's reagent test .

Targeted Skills - Analytical skill, Observational, Critical thinking

PRACTICAL: A Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R_f values.

(c) Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in R_f values to be provided).

B. Qualitative analysis

Determination of one anion and one cation in a given salt

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skills

UNIT V (AUGUST)

Coordination Compounds

Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, the importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).

KEY WORDS: Co-ordination compounds, Co-ordination Complex, Co-ordination Sphere, Double salts, Crystal field splitting energy(CFSE), Diamagnetic, Ligand, Chelate, Chelating effect, Coordination number, Ligand.

Activity: Qualitative Inorganic analysis :Students will be involved in problem solving (a set of questions to be discussed in class) based on the above aspects for better understanding of the introductory part of the topic.

Targeted Skills - Demonstrative , Critical Analysis.

PRACTICAL: Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum.

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative and decision-making skills

UNIT VI: (OCTOBER)

Haloalkanes and Haloarenes.

Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions.

Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.

KEY WORDS :Achiral, alkyl halides, allylic halides, ambidentnucleophiles, carbocation, dextrorotatory, diazoniumsalts, electrophillicsubstitution, elimination reaction, grignard reagent, optically active, stereo centre.

Activity: Qualitative Inorganic analysis ,draw the resonating structure of haloarenes.

Targeted Skills - Assessing and analysing information, Curiosity and imagination.

PRACTICAL: Tests for the functional groups present in organic compounds: Unsaturation

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skills

UNIT VII: (OCTOBER)

Alcohols, Phenols and Ethers

Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol.

Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols.

Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.

KEY WORDS: Acidity, Aromatic ring, Benzylic alcohols, Cumene, Dehydrogenation, Electrophilic aromatic substitution, Polyhydric compounds, Vinylic alcohol, ferric chloride test for phenols. Iodoform test, Lucas test.

Activity: To name alcohols, phenols and ethers according to the IUPAC system of Nomenclature.

Targeted Skills -Assessing and analysing information, Curiosity and imagination.

PRACTICAL: Tests for the functional groups present in organic compounds: alcoholic, phenolic groups.

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skills

UNIT VIII: (NOVEMBER)

Aldehydes, Ketones and Carboxylic Acids

Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.

Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.

KEY WORDS :Aldehydes, Phenol, benzoic acid, Benzophenone, Acetophenone, Benzaldehyde, Acetaldehyde, Electrophilic substitution, Inductive Effect, Aldol Condensation, Alkyl benzenes, Bayer's reagent, Electron donating groups, Electron withdrawing groups, Ozonolysis, Polarity, Cannizzaro reaction, cross-aldol condensation, Tollen's test,

Fehling's test, estertest, acetal. cyanohydrin, ketal, oxime, imine.

Activity: Structures of the compounds containing functional groups namely carbonyl and carboxyl groups

Targeted Skills -Observation skills, Collaboration

PRACTICAL- Tests for the functional groups present in organic compounds: aldehydic, ketonic, carboxylic groups.

Practical- 21st century skills that can be useful for science practicals:

- Scientific reasoning: Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skills

UNIT IX: DECEMBER

AMINES Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines.

Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.

KEY WORDS: Zwitterion, Nitration, Ammonolysis, Primary, secondary and tertiary amines. Aromatic amines, Quaternary ammonium salts, acylation, carbilamines.

Practical: Tests for the functional groups present in organic compounds: Amino (Primary) groups.

Practical- 21st century skills that can be useful for practicals:

- **Scientific reasoning:** Improves critical thinking, problem-solving, Initiative, Productivity and decision-making skills

UNIT X (DECEMBER)

Biomolecules

Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates.

Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure.

Vitamins - Classification and functions.

Nucleic Acids: DNA and RNA.

KEY WORDS Aldopentose, amino acids, amylopectin, amylase, animal starch, oligosaccharides, polysaccharides denaturation of proteins, globular proteins, nucleoside, nucleotide, peptide linkage, Zwitter ion.

Activity: To become more aware about various products being used in daily life .Prepare are port on composition of various products.

Targeted Skills -Team work, research skill, Analytical skill.

Practical: Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.

Practical- 21st century skills that can be useful for practicals:

- Scientific reasoning: Improves critical thinking, problem-solving and decision-making skills

PRACTICAL EXAMINATION:

FINAL PRACTICALS AISSCE (FEBRUARY 2025)

Evaluation Scheme for EXAMINATION	Marks
Volumetric Analysis	08
Salt Analysis	08
Content Based Experiment	06
Project Work	04
Class record and viva	04
Total	30

INVESTIGATORY PROJECT

Scientific investigations involving laboratory testing and collecting information from other sources A few suggested Projects.

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study the quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with natural milk with respect to curd formation, the effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of the following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

Note: Any other investigatory project, which involves about 10 periods of work, can be chosen with the approval of the teacher.

Subject : Biology

Prescribed Books:

1. Biology, Class XII, Published by NCERT

Rationale

The present syllabus reinforces the ideas introduced till the secondary classes. It provides the students with new concepts along with an extended exposure to contemporary areas of the subject. The syllabus also aims at emphasizing on the underlying principles that are common to both animals and plants as well as highlighting the relationship of biology with other areas of knowledge. The format of the syllabus allows a simple, clear, sequential flow of concepts without any jarring jumps. The syllabus also stresses on making better connections among biological concepts. It relates the study of biology to real life through the use of technology. It links the discoveries and innovations in biology to everyday life such as environment, industry, health and agriculture. The updated syllabus also focuses on reducing the curriculum load while ensuring that ample opportunities and scope for learning and appreciating basic concepts of the subject continue to be available within its framework.

Objectives:

- promote understanding of basic principles of Biology
- encourage learning of emerging knowledge and its relevance to individual and society.
- promote rational/scientific attitude to issues related to population, environment and development

- enhance awareness about environmental issues, problems and their appropriate solutions
- create awareness amongst the learners about diversity in the living organisms
- appreciate that the most complex biological phenomena are built on essentially simple processes.

It is expected that the students would get an exposure to various branches of Biology in the syllabus in a more contextual and friendly manner as they study its various units.

CLASS XII (2024-25) (THEORY)

Time:3 Hours

Max.Marks:70

Unit	Title	No. of Periods	Marks
VI	Reproduction	30	16
VII	Genetics and Evolution	40	20
VIII	Biology and Human Welfare	30	12
IX	Biotechnology and its Applications	30	12
X	Ecology and Environment	30	10
	Total	160	70

PRACTICALS

Time allowed: 3 Hours

Max. Marks: 30

Evaluation Scheme	
One Major Experiment Part A	5 Marks
One Minor Experiment Part A	4 Marks
Slide Preparation Part A	5 Marks
Spotting	7 Marks
Practical Record+Viva Voce	4 Marks
Project Record + Viva Voce	5 Marks
Total	30 Marks

Assessment Areas (Theory) 2024-25 Biology (044)

Time :3hrs.

Maximum Marks: 70Marks

Competencies	
Demonstrate Knowledge and Understanding	50%
Application of Knowledge / Concepts	30%
Analyse, Evaluate and Create	20%

Type of Question	Mark(s) per Question	Total No. of Questions	Total Marks
VSA	1	16	16
Case based Questions	4	02	08
SA	2	05	10
LA-I	3	07	21
LA-II	5	03	15
Total		33	70

Type of Question	Mark(s) per Question	Total No. of Questions	Total Marks
VSA	1	05	05
Case Based Questions	4	01	04
SA	2	04	08
LA-I	3	01	03
LA-II	5	01	05
Total		12	25

- Typology of questions: VSA including MCQs, Assertion – Reasoning type questions; SA; LA-I; LA-II; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided. Suggestive verbs for various competencies
- **Demonstrate, Knowledge and Understanding**
State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- **Application of Knowledge/Concepts**
Calculate, illustrate, show, adapt, explain, distinguish, etc.
- **Analyze, Evaluate and Create**
Interpret, analyse, compare, contrast, examine, evaluate, discuss, constru

UNITWISE SYLLABUS

UNIT-1 Reproduction in Plants (April)

(Marks-6)

Keyword: Sexual reproduction, juvenile phase, senescent phase, dioecious, monoecious, pericarp, syngamy, meiocyte.

Sexual reproduction in flowering plants: flower structure; development of male and female gametophytes; pollination; types, agencies and examples, out breeding devices; pollen pistil interaction; double fertilisations; post fertilization events- development, endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; significance of seed dispersal and fruit formation.

Targeted Skills : Understanding, Analytical and Calculation

Practical:

- Prepare a temporary mount to observe pollen germination.
- Controlled pollination-emasculation, tagging and bagging (Spotting).
- Flowers adapted to pollination by different agencies (wind, insect, bird) (Spotting).
- Pollen germination on stigma through permanent slide (spotting).

UNIT-2 Reproduction (May)

(Marks-10)

Keywords: Human reproduction, testis, ovary, gametogenesis, spermatogenesis, oogenesis, follicular atresia, menarche, ovulation, menopause, cleavage, implantation.

CONTENT :

Human reproduction: male and female reproductive system; microscopic anatomy of testis and ovary; gametogenesis-spermatogenesis and

oogenesis, menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

Reproductive Health: Need for reproductive health and prevention of sexually transmitted diseases (STD); birth control- need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies-IVF, ZIFT, GIFT (elementary idea for general awareness).

Targeted Skills : Understanding, Analytical and Calculation

PRACTICAL:

- Study and identify stages of gamete development i.e. T.S. testis and ovary through permanent slide (spotting).
- T.S. of blastula through permanent slide (spotting).

Unit-3 Genetics (July)

(Marks-7)

Keywords: Heredity, Variations, Alleles, Phenotype, Genotype, Homozygote, Heterozygote, Dominant allele, Recessive allele, Pleiotropy, Multiple allelism, Co dominance, Monohybrid, Dihybrid.

Content:

Principles of inheritance and variation

Heredity and variation: Mendelian inheritance, Deviations from mendelism - incomplete dominance, Co dominance, Multiple alleles and inheritance of blood groups, Pleiotropy, Elementary idea of polygenic inheritance, Chromosome theory of inheritance, Chromosome and genes, Sex determination in humans, Birds and honey bee, Linkage and crossing over, Sex linked inheritance, haemophilia, Colour blindness, Mendelian disorders in humans - Thalassemia, Chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndrome.

Targeted Skills: Understanding, Analytical and Calculation

Practical (spotting):

Mendelian inheritance using seeds of different colour, size of any plant.

ASSESSMENT UNIT TEST-2 (25 MARKS)

TIME- JULY-AUGUST, 2024

SYLLABUS- 2 UNITS

UNIT-2 Human Reproduction

UNIT-3 Genetics

UNIT-4 Molecular basis of inheritance (July) (Marks-7)

Keywords: Replication, ori of replication, Nucleosome, Transcription, Replication fork, Translation, Silent mutations, Frame shift mutation, Operon, DNA probe.

Content:

Molecular basis of inheritance; Search for genetic material and DNA as genetic material, Structure of DNA and RNA, DNA packaging, DNA replication, Central dogma, Transcription, Genetic Code, Translation, Gene expression and regulation-lac operon, Genome; Human and Rice genome project, DNA fingerprinting.

Targeted Skills: Understanding, Analytical and Calculation

Practical:

Prepare pedigree chart of any one of genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness (spotting)

UNIT-5 Evolution(August) (Marks-6)

Keywords: Homologous organs, Analogous organs, Speciation, Genetic

drift, Natural selection, Reproductive isolation, Embryology, Paleontology, Convergent evolution, Divergent evolution, Natural selection, Artificial selection.

Content: Evolution

Origin of life, Biological evolution and evidences for biological evolution, (Paleontology, comparative anatomy, embryology and molecular evidences), Darwin's contribution, Modern synthetic theory of evolution, Mechanism of evolution, variation(mutation and recombination) and natural selection with examples, Types of natural selection, Gene flow and genetic drift, Hardy-weinberg's principle, Adaptive radiation, Human evolution.

Targeted Skills: Understanding, Analytical and Calculation

Practical:

Prepare a temporary mount of onion root tip to study mitosis.

Flash cards models showing examples of homologous and analogous organs.

Study various stages of meiosis in onion bud cell or grasshopper testes through permanent slides (spotting)

ASSESSMENT TERMINAL EXAMINATION (70 marks)

TIME- SEPTEMBER, 2024

SYLLABUS- 5 UNITS

UNIT 1 Reproduction in Plants

UNIT 2 Human Reproduction

UNIT 3 Genetics

UNIT 4. Molecular basis of inheritance

UNIT 5 Evolution

UNIT-6 Biology and Human Welfare (October) (Marks-6)

Keywords: Pathogens, antibodies, antigens, immunity, interferons, allergy, cancer, metastasis, tumours, retroviruses, drug abuse, adolescence, addiction.

Content:

Human Health and diseases: Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology-vaccines; cancer, HIV and AIDS; Adolescence, drug and alcohol abuse.

Targeted Skills: Understanding, Analytical and Calculation

Practical:

Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, Any fungus causing Ringworm through permanent slides or specimens Comment on symptoms of disease (spotting).

Activity: On AIDS days- Poster making or A Visit to hospital.

UNIT-7 Biology and Human welfare (October) (Marks-6)

Keywords: Germplasm, apiculture, somaclones, explant, implant, plant tissue culture, biofortification Prions, fermentors, Floccs, antibiotics, biogas, Baculoviruses .

Content:

Microbes in human welfare: Microbes In food processing, industrial production, sewage treatment, energy generation and as biocontrol agents and biofertilizers. Antibiotics; Production and judicious use

Targeted Skills: Understanding, Analytical and Calculation

ASSESSMENT UNIT TEST-3 (25 MARKS)

TIME- NOVEMBER, 2024

SYLLABUS- 2 UNITS

UNIT-6. & UNIT-7. Biology and Human welfare

UNIT-8 Biotechnology (November) (Marks-12)

Keywords: Transgenic, gene cloning, plasmid, recombinant DNA, recognition site, palindromes, electroporation, gene therapy, microinjection, gene gun.

Content:

Biotechnology- Principles and Processes : Genetic Engineering (Recombinant DNA Technology).

Biotechnology and its Applications;

Application of biotechnology in health and agriculture: Human insulin and vaccine production, Stem cell technology, gene therapy; genetically modified organisms-Bt crops; transgenic animals; biosafety issues, biopiracy and patents.

Targeted Skills: Understanding, Analytical and Calculation

Practical:

Isolation of DNA from plant material such as spinach, green pea seed, papaya etc.

UNIT-9 Ecology (November) (Marks-4)

Keywords: Habitat, Niche, ecosystem, Birth rate, Mortality rate, Primary succession, climax community, obligate parasites 10% law, Mutualism.

Content:

Organism and environment: Population interactions; mutualism, competition, Predation, Parasitism, Population attributes, growth, Birth rate

and death rate, age distribution.

Targeted Skills: Understanding, Analytical and Applications

Practical:

Study the plant population density/frequency by quadrat method.

Models/ specimens showing symbiotic association in root nodules of leguminous plants, Cuscuta on host, Lichens.

Activity: On nature conservation day- Tree plantation and poster making.

UNIT-10 Environment (November)

(Marks-6)

Keyword: Biodiversity hotspots, endangered animals, Biosphere e-waste, Nuclear waste, Aforestation, Ozone depletion, Global warming, sacred forests, Cryopreservation.

Content:

Ecosystem: Patterns, components, Productivity and decomposition, Energy flow, Pyramids of number, Biomass, Energy

Biodiversity and its conservation: Concept of biodiversity; patterns of biodiversity; importance of biodiversity; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred grooves, biosphere reserves, national parks, wildlife, sanctuaries, Ramsar sites.

Targeted Skills: Understanding, Analytical and Applications

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

PREBOARD 1 – CONFIDENCE BUILDING TEST (DECEMBER, 2024)

PREBOARD 2 – UNIT 1-10 (JANUARY, 2025)

Subject : Sociology

Rationale

- The syllabus is designed to help learners to reflect on what they hear and see in the course of everyday life and develop a constructive attitude towards society in change. The curriculum of Sociology at this stage should enable the learner to understand dynamics of human behaviour.
- Sociology studies society. The child's familiarity with the society in which she/ he lives in makes the study of Sociology a double edged experience. At one level sociology studies institutions such as family and kinship, class, caste and tribe religion and region-contexts with which children are familiar of ,even if differentially.
- Sociology also makes it possible to understand other cultures as well as relearn about one's own culture.
- The chapters shall seek for a child centric approach that makes it possible to connect the lived reality of children with social structures and social processes that Sociology studies.
- A conscious effort will be made to build into the chapters a scope for exploration of society that makes learning a process of discovery.

Objectives

- To enable learners to relate classroom teaching to their outside environment.
- To introduce them to the basic concepts of Sociology that would enable them to observe and interpret social life.
- To be aware of the complexity of social processes.
- To appreciate diversity in Indian society and the world at large.
- To build the capacity of students to understand and analyze the changes in contemporary Indian society.

SOCIOLOGY (Code No. 039) QUESTION PAPER DESIGN

S .No.	Competencies	Total Marks	Weightage (%)
1	Knowledge & 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	30	37.5%
2	Application of Knowledge and Concepts Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way .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.	32	40%
3	Formulate, Analyse , Evaluate & Create Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	18	22.5%
		Total 80	100%

DIVISION OF MARKS: UNIT TEST (25 marks)

QUESTIONS	MARK/MARKS	TOTAL MARKS
5	1	5
3	2	6
2	4	8
1	6	6
		25

DIVISION OF MARKS: TERMINAL EXAMINATION (80 marks)

QUESTIONS	MARK/MARKS	TOTAL MARKS
16	1	16
9	2	18
7	4	28
3	6	18
		80

COURSE STRUCTURE

Max. Marks: 80

One Theory Paper Time: 3 Hours

Indian Society

UNIT-1 : THE DEMOGRAPHIC STRUCTURE OF INDIAN SOCIETY (10 MARKS) (APRIL)

- Theories and concepts in demography
- Rural-Urban Linkages and Divisions
- Population Policy in India

Targeted Skills: Understanding, Analytical and Calculation, Critical Thinking and Problem solving.

Activity – (21st Century Skills- Critical Thinking and Problem solving.)

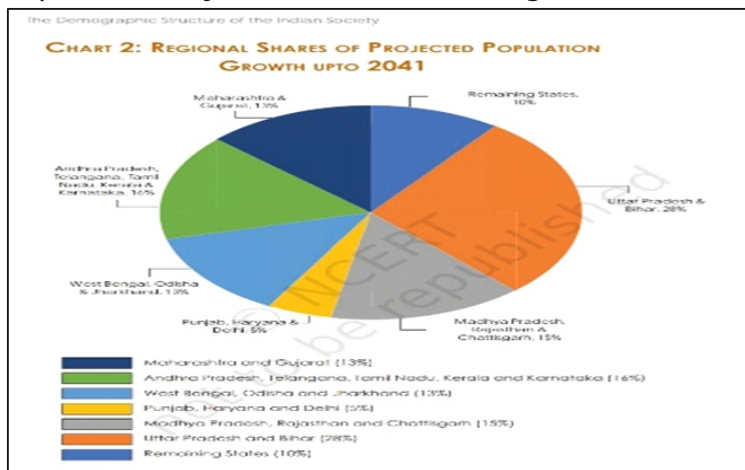


Chart 2 : Regional Shares Of Projected Population Growth Upto 2041

Ans the following questions on the basis of above fig .

- I) Which regions are projected to increase in population ?
- ii) Which regions have same shares of population projection ?
- iii) Which states have the lowest projected population by 2041?

ASSESSMENT UNIT TEST-1 (25 MARKS)

TIME- MAY, 2024

SYLLABUS-UNIT-1

UNIT-2 : SOCIAL INSTITUTIONS: CONTINUITY AND CHANGE

(10 MARKS) (MAY)

- Caste and the Caste System
- Tribal Communities
- Family and Kinship

Targeted Skills: Understanding, Critical thinking, Communication

Information literacy , Initiative , Social skill

Activity – (21st Century Skills- Critical Thinking, Knowledge and Understanding)

Class discussion about the contribution of reformers that addressed the social evils in society in eighteenth and nineteenth century .

UNIT-3: PATTERNS OF SOCIAL INEQUALITY AND EXCLUSION

(10 MARKS) (MAY & JULY)

- Social Inequality and Social Exclusion

- System justifying and perpetuating inequality-Caste, Tribe, the other backward classes
- Adivasi struggles
- The struggle for Women's Equality and Rights
- The struggles of the Differently Abled

Targeted Skills: Understanding, Critical thinking, Communication, Social skill

Activity – (21st Century Skills- Knowledge and Understanding)

Find and list all the articles that deal with the scheduled caste and scheduled tribes or with caste related problems like untouchability .

**UNIT-4: THE CHALLENGES OF CULTURAL DIVERSITY (10 MARKS)
(JULY -AUGUST)**

- Cultural communities and the nation state
- Regionalism in the Indian context
- The Nation state and religion related issues and identities
- Communalism, secularism and the nation state
- State and civil society

Targeted Skills: Understanding, Critical thinking Curiosity, Adaptability

Activity – (21st Century Skills- Critical Thinking and Understanding)

Why is it so important for people to belong to communities based on cultural identities like caste ,ethnic groups ,region ,religion ?Why is so much passion aroused ?Why these passions pose problems for the nation state?

ASSESSMENT UNIT TEST-2 (25 MARKS)

TIME- JULY-AUGUST, 2024

SYLLABUS- 2 UNITS

UNIT-2: SOCIAL INSTITUTIONS: CONTINUITY AND CHANGE

UNIT-3 : PATTERNS OF SOCIAL INEQUALITY AND EXCLUSION

Social Change and Development in India

UNIT-5 : STRUCTURAL CHANGE (5 MARKS) (AUGUST)

- Understanding Colonialism, Industrialization, Urbanization

Targeted Skills: Understanding, Critical thinking ,Curiosity Adaptability

Activity – (21st Century Skills- Critical Thinking and Understanding)

British colonialism is still a complex part of our lives . How?

ASSESSMENT TERMINAL EXAMINATION (80 marks)

TIME- SEPTEMBER, 2024

SYLLABUS- 5 UNITS

UNIT 1 -THE DEMOGRAPHIC STRUCTURE OF INDIAN SOCIETY

UNIT 2 -SOCIAL INSTITUTIONS: CONTINUITY AND CHANGE

UNIT 3- PATTERNS OF SOCIAL INEQUALITY AND EXCLUSION

UNIT 4 THE CHALLENGES OF CULTURAL DIVERSITY

UNIT 5 STRUCTURAL CHANGE

UNIT-6 : CULTURAL CHANGE (5 MARKS) (SEPTEMBER)

- Social Reform Movements

- Different kinds of Social Change: Sanskritisation, Westernization, Modernization, Secularization

Targeted Skills: Understanding, Critical thinking, Adaptability

Activity – (21st Century Skills- Critical Thinking and Understanding)

Take any matrimonial column from any newspaper or websites like and try and see the pattern .How often is caste or community mentioned ?If it is mentioned many times does it mean that caste continues to play the same kind of role as it did traditionally ?Or the role of caste has changed ?Discuss.

UNIT-7 : CHANGE AND DEVELOPMENT IN RURAL SOCIETY

(10 MARKS) (OCTOBER)

- Agrarian Structure: Caste and class in Rural India
- Land reforms, Green Revolution and Emerging Agrarian society
- Green revolution and its social consequences
- Transformation in Rural Society
- Circulation of labour
- Globalization, Liberalization and Rural Society

Targeted Skills: Understanding, Critical thinking

Activity – (21st Century Skills- Critical Thinking and Understanding)

What is the significance of the various practices or rituals that are associated with that festival and how are they linked to agriculture ?

ASSESSMENT UNIT TEST-3 (25 MARKS)

TIME- NOVEMBER, 2024

SYLLABUS- 2 UNITS

UNIT-6. CULTURAL CHANGE

UNIT-7. CHANGE AND DEVELOPMENT IN RURAL SOCIETY

UNIT-8 : CHANGE AND DEVELOPMENT IN INDUSTRIAL SOCIETY

(10 MARKS) (NOVEMBER)

- From planned Industrialization to Liberalization
- How people find jobs
- Work Processes: How work is carried out, working conditions, home based work, Strikes and Unions

Targeted Skills- Understanding, Critical thinking

Activity – (21st Century Skills- Critical Thinking and Understanding)

Give an example of how machinery creates a problem for workers. What alternative did Gandhiji have in mind ?How does adopting the spinning wheel prevent exploitation ?

UNIT-9 : SOCIAL MOVEMENTS (10 MARKS) (NOVEMBER)

- Concept of Social Movements
- Theories and Classification of Social Movements
- Environmental Movements
- Class-Based Movements: Workers, Peasants
- Caste-Based Movements: Dalit Movement, Backward Class/ Castes, Trends in Upper Caste Responses , Tribal Movements, Women's Movements in Independent India

Targeted Skills- Understanding, Critical thinking Curiosity Adaptability

Activity – (21st Century Skills-Critical Thinking and Understanding)

Compare your life with your grandmother .How is it different from yours? What are the rights you take for granted in your life and which she did not have ?

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

PROJECT WORK – Max. Marks: 20

Project undertaken during the academic year at school level (15 MARKS)

- 1. Introduction -2 Marks**
- 2. Statement of Purpose – 2 Marks**
- 3. Research Question – 2 Marks**
- 4. Methodology – 3 Marks**
- 5. Data Analysis – 4 Marks**
- 6. Conclusion – 2 Marks**

Viva – based on the project work (5 MARKS)

Prescribed Books:

Indian Society, Class XII, Published by NCERT

Social Change and Development in India, Class XII, Published by NCERT

Subject : Political Science

Rationale

Political Science as a field of study in senior secondary classes enable students to get an exposure to political activities and processes that they are exposed to in everyday life. The study of political science has emerged as a multifaceted discipline, Involving a contemporary interdisciplinary approaches and empirical framework, emphasizing more on field work rather than Theoretical perceptions. The connect between government and citizen ensures the emergence of an active and reflective

Citizens and vibrant democracy. CBSE has therefore incorporated project work in Political Science to enable students to extend their interest beyond textbooks and provide them with a platform to gather information, value the decisions made to shape the community and visualize future course of action to be taken to ensure healthy democracy.

Objectives of project work:

- To enable learners to probe deeper, initiate action and reflect on knowledge and skills acquired during the course of class XI and XII
- To analyze and evaluate real world scenarios using social constructivism, a theory based on observation and scientific study
- To become independent and empowered to choose their topic and gather data from a variety of source, investigate varied viewpoints acquired during the course XI-XII and arrive at logical deductions.

- To enquire into, and reflect on, issues independently /in collaboration with others and identify the limitations
- To develop 21st century skills of communication, cooperation, coordination, critical thinking, creativity and collaboration To produce an extended and independent work.

Chapter No.	Chapter Name	No. of Periods	Marks Allotted
PART A-CONTEMPORARY WORLD POLITICS			
1	The End of Bipolarity	15	6
2	Contemporary Centres of Power	18	6
3	Contemporary South Asia	18	6
4	International Organizations	10	6
5	Security in the Contemporary World	10	6
6	Environment and Natural Resources	12	6
7	Globalisation	12	4
	Total	95	40
PART B-POLITICS IN INDIA SINCE INDEPENDENCE			
1	Challenges of Nation-Building	16	6
2	Era of One-Party Dominance	8	4
3	Politics of Planned Development	12	2
4	India's External Relations	20	6
5	Challenges to and Restoration of the Congress System	12	4
6	The Crisis of Democratic Order	15	4
7	Regional Aspirations	15	6
8	Recent Developments in Indian Politics	20	8
		118	40
	TOTAL	213	80

QUESTION PAPER DESIGN

Book	Objective Type/ MCQ (1 Mark)	Short Answers Type I (2 Marks)	Short Answers Type II (4 Marks)	Passage /Map / Cartoon based (4 Marks)	Long Answers (6 Marks)	Total Marks
Book 1 Contemporary World Politics	6	3	3	1(Passage)	2	40
Book 2 Politics in India since Independence	6	3	2	2(Cartoon and Map)	2	40
Project/Practical						20
Total No. of Marks and Questions	1x12=12	2x6=12	4x5=20	4x3=12	6x4=24	80+20=100

DIVISION OF MARKS: UNIT TEST 25 MARKS

Q U E S T I O N	M A R K / M A	T O T A L M A
3	1	3
1	2	2
2	4	8
2	6	1 2
		2 5

DIVISION OF MARKS: TERMINAL EXAM 80 MARKS

QUESTIONS	MARK/MARKS	TOTAL MARKS
12	1	12
6	2	12
5	4	20
3	4(passage based, map based and picture based)	12
6	4	24
		80

UNIT 1

Chapter 1 The End of Bipolarity (APRIL)

The Soviet System, Gorbachev and the Disintegration Causes and Consequences Of disintegration of Soviet Union, Shock Therapy and its Consequences New entities in world politics Russia Balkan States Central Asian States India's relations with Russia and other post-communist countries

Important Terms- Soviet System, Socialist Bloc, Capitalist Economy, Unipolar System, Multipolar System, Egalitarian Society, Largest Garage sale, Shock Therapy.

Targeted Skills: Accessing and analysing information

Activity- Make a list of the similarities between India and The USSR in their political and economic ideologies.

Chapter 1 Challenges of Nation- Building (APRIL)

Challenges for the new Nation. Three Challenges.

Partition: Displacement and Rehabilitation.

Consequences of Partition, Integration of Princely States.

The problem

Government's approach

Hyderabad

Manipur

Reorganisation of States

Important terms- Two nation Theory, British Indian Provinces, Princely States, Razakars, Nizam, State Reorganisation Commission.

Activity- Students will collect all the stories from Let's Research' suggestions in this chapter and prepare the wallpaper that highlights the common experiences and has stories on the unique experiences.

Targeted Skills: Accessing and analysing information

ASSESSMENT UNIT TEST-1 (25 MARKS)

TIME- MAY, 2024

SYLLABUS- UNIT-1

UNIT-1 The End of Bipolarity

Challenges of Nation- Building

UNIT 2 Chapter 2 Politics of planned development (April)

Political contestation, Ideas of Development, Planning

Planning Commission The Early Initiatives, The First Five Year Plan, Rapid Industrialisation.

Important Terms- Planning, Capitalist Economy, Socialist Economy, Bombay Plan, Planning Commission, Plan Budget, Mixed Economy

Activity- Students will write an article on White Revolution.

Targeted Skills: Understanding, Analytical and Critical thinking.

Chapter 6 Environment and Natural Resources (MAY)

Environmental Concerns, Global Commons, Common but differentiated, Responsibilities, India's Stand of Environment Issues, Environmental Movements.

Targeted Skills: Understanding, Critical thinking.

UNIT 3 Chapter 6 Globalization (May)

Concept of Globalisation, Causes and Consequences of globalisation India and globalization Resistance to globalization, India and resistance to Globalisation

Important Terms- Globalisation, World Social Forum, Privatisation, Liberalisation, Cultural heterogenisation

Activity- Students are to write down their favourite TV programmes and find out who are makers/sponsors of it. Discuss how our globalisation has been impacting our lives.

Targeted Skills: Critical thinking and problem solving.

ASSESSMENT UNIT TEST-2 (25 MARKS)

TIME- JULY-AUGUST, 2024

SYLLABUS- 2 UNITS

UNIT-2 Politics of planned development, Environment and Natural Resources

UNIT-3 Globalization, Contemporary Centres of Power

UNIT 4 Chapter 3 Contemporary Centres of Power (JULY)

European Union Association of Southeast Asian Nations Rise of China as an Economic power Japan and South Korea as Emerging powers

Important Terms- EU, OEEC, Marshall Plan, ASEAN, ASEAN way, ASEAN regional Forum, SEZs, Open door policy, Three pillars of ASEAN Community.

Activity- Chinese President Xi Jinping Paid a visit to India in 2014 and a Prime Minister Narendra Modi visited China in 2015. Find out about the agreements signed during their visits.

Chapter 3 India's External relations (July)

International Context, The Policy of Non Alignment.

Nehru's role Distance from two camps. Afro Asian Unity

c) Peace and conflict with China, The Chinese Invasion 1962 War and Peace with Pakistan Bangladesh War 1971, India's Nuclear Policy.

Important Terms- Non- alignment, Foreign Policy, Panchsheel, Bandung Conference, NEFA

Activity- Collect information regarding 1965 and 1971 wars in India.

Targeted skills: Learning and Innovation Skills.

UNIT5 Chapter 3 Contemporary South Asia (AUGUST, 2024)

Military and Democracy in Pakistan and Bangladesh

Monarchy and Democracy in Nepal, Ethnic Conflict and

Democracy in Sri Lanka, India-Pakistan Conflicts India and its Neighbours, Peace and Cooperation

Important Terms- Geo Politics, Bilateral talks, Indian Peace Keeping

Force, Seven Party Alliance, SAARC, SAFTA, LTTE

Targeted Skills: Critical Thinking and Problem Solving

Chapter 5 International Organizations (AUGUST)

Meaning and importance of International Organisations

Evolution of the UN, Structure and function of International Organisations,
Principal Organs of UN

Reform of the UN after Cold War Reform of Structures,

Processes and Jurisdiction of The UN India and the UN Reforms

Important Terms- International Monetary Fund, World Bank, WTO, IAEA,
Amnesty International, Human Rights, UNESCO, Peace keeping
Operation.

Activity- Students will make slogans for formation of UN.

Targeted Skills: Productivity And Accountability

ASSESSMENT TERMINAL EXAMINATION (80 marks)

TIME- SEPTEMBER, 2024

SYLLABUS- 5 UNITS

UNIT 1 The End of Bipolarity

Challenges of Nation- Building

UNIT 2 Politics of planned development

Environment and Natural Resources

UNIT 3 Globalization

UNIT 4 India's External relations

Contemporary Centres of Power

UNIT 5 Contemporary South Asia

International Organisation

UNIT 6

Chapter 2 Era of one party dominance (September,2024)

Challenge of building democracy

Congress dominance in the

First three general elections.

- Nature of Congress Dominance
- Congress as social and Ideological coalition.
- Tolerance and Management of Factions

Emergence of opposition parties.

Targeted Skills: Social And Cross Cultural Interaction

Chapter 4 Challenges to and restoration of the Congress (October)

Challenge of Political Succession, From Nehru to Shastri From Shastri to Indira Gandhi, Fourth General Election 1967, Context of the Election. Non Congressism Electoral Verdict Coalitions, Defections Split in the Congress, Indira vs the Syndicate Presidential Election 1969

The 1971 Election and Restoration of Congress

The outcome and after Restoration?

Important Terms- EVM's, FPTP, Ideological Oriented Party, Interest Oriented Party, Charismatic Leader Oriented Party

Activity- Ask the elders in your family and neighbourhood about their experience of participating in elections.

1. Did anyone vote in the first or second general elections? Who did they vote for and why?
2. Is there someone who has used all three methods of voting? Which one

did they prefer?

3. In which ways they find the elections of those days different from the present one's?

Targeted Skills: Communication, Social Skills, Creative Thinking, Flexibility

UNIT 7

Chapter 5 The crisis of democratic order (October)

Background to Emergency. Economic Context. Gujarat and Bihar Movements, Conflict with Judiciary, Declaration of Emergency, Crisis and response Consequences, Lessons of the Emergency. Politics after Emergency. Lok Sabha Elections 1977, Janata Government Legacy.

Important terms- Emergency, Press censorship, Preventive Detention, Marxist-Leninist, Twenty Point Programme

Activity- Ask your parents or other elders in the family or neighbourhood about their experience during 1975-77. Take down notes on the following-

1. Their personal experience of the Emergency.
2. Any report of support or opposition to the emergency in your locality.
3. Their participation in the 1977 elections and why they voted the way they did.

Put your notes together and make a collective report on Emergency in my city/village

Targeted Skills: Critical Thinking, Creative Thinking, Communication, Initiative

Chapter 5 Security in Contemporary World Security(October)

Meaning and Type of Security. Traditional concept of security Non-tradition

notions of Security. New Sources of Threats Cooperative Security India's Security strategy

Targeted Skills: Communication, Creative Thinking, Social Skills

Chapter 6 Regional Aspirations Rise of regional parties. (November)

Region and the Nation Indian Approach, Areas of Tension, Jammu and Kashmir, Roots of the Problem, External and Internal disputes, Politics since 1948 Insurgency and After 2022 and Beyond, Punjab Political Context, Cycle of Violence, Road to Peace, The Northeast Demand for autonomy Secessionist Movements Movements against outsiders, Assam and National Integration

Targeted Skills: Communication, Creative Thinking, Social Skills

ASSESSMENT UNIT TEST-3 (25 MARKS)

TIME- November, 2024

SYLLABUS- UNIT-6,7

The crisis of democratic order

Security in Contemporary World Security

Regional Aspirations Rise of regional parties.

Challenges to and restoration of the Congress

Era of one party dominance

UNIT 8

Chapter 8 Indian Politics: Recent developments in Indian politics (November)

Context of 1990s, Era of Coalition Alliance Politics

Political rise if the Backward Classes Mandal Implemented Political Fallouts, Communalism, Secularism and Democracy. Ayodhya Dispute

Demolition and after Emergence of New Consensus, Lok Sabha Elections 2004, Growing Consensus

Important Terms- OBC, BAMCEF, Karseva, Mandal Commission

Activity- Find out about Mandal Commission and its history

Targeted Skills: Critical Thinking, Effective Communication, Creative Thinking

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

Project Work (JUNE)

- The Project work will be implemented for 20 Marks.
- Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.

For class XII, the evaluation for 20 marks project work should be done jointly by the internal and external examiners

QUESTION PAPER DESIGN

Book	Objective Type/ MCQ (1 Mark)	Short Answers Type I (2 Marks)	Short Answers Type II (4 Marks)	Passage /Map / Cartoon based (4 Marks)	Long Answers (6 Marks)	Total Marks
Book 1 Contemporary World Politics	6	3	3	1(Passage)	2	40
Book 2 Politics in India since Independence	6	3	2	2(Cartoon and Map)	2	40
Project/Practical						20
Total No. of Marks and Questions	1x12=12	2x6=12	4x5=20	4x3=12	6x4=24	80+20=100

Subject : Economics

Prescribed Books:

1. Introductory Macro Economics, Class XII, NCERT
2. Indian Economic Development, Class XII, NCERT
3. Supplementary Reading Material in Economics, Class XII, CBSE

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 rigor 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:

1. 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.
2. Realisation of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.
3. 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.
4. Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.

DISTRIBUTION

Units	Marks	Periods
Part A: Introductory Macro economics		
1. Money and Banking	06	15
2. Government Budget and the Economy	06	17
3. Balance of Payments	06	18
4. National Income and Related Aggregates	10	30
5. Determination of Income and Employment	12	30
	(40)	

Part B: Indian Economic Development

6.	Development policies and Experience (1947-90)		
7.	Economic Reforms since 1991		
	UNIT 6 & 7	12	28
8.	Current Challenges facing Indian Economy- Part I		
9.	Current Challenges facing Indian Economy-Part II		
	UNIT 8 & 9	20	50
10.	Development experience of India-A Comparison	08	12
		40	(200)
	Theory Paper		(40+40=80)
	Part C: Project Work		20

Marking Scheme for project work:

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

Suggested Question Paper Design
Economics (Code No. 030)
Class XII (2024-25)
March 2025 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	44	55%
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	18	22.5%
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.	18	22.5%
Total		80	100%

TENTATIVE ASSESSMENT SCHEDULE : 2024-25

SR. NO.	ASSESSMENT	MARKS	TIME PERIOD	SYLLABUS
1	UNIT TEST - 1	25	MAY	UNIT :1
2	UNIT TEST - 2	25	JULY-AUGUST	UNITS:2&3
3	TERMINAL	80	SEPTEMBER	UNITS :1 - 5
4	UNIT TEST - 3	25	NOVEMBER	UNITS : 6&7
5	CBT	80	DECEMBER	UNITS : 6 - 10
6	PRE-BOARD	80	JANUARY	UNITS : 1 - 10

DIVISION OF MARKS: UNIT TEST (M.M.: 25)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
5	1	5
2	3	6
2	4	8
1	6	6

DIVISION OF MARKS: TERMINAL EXAM, CBT & PREBOARD (M.M.: 80)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
20	1	20
4	3	12
6	4	24
4	6	24

PART A: INTRODUCTORY MACROECONOMICS

Part A: Introductory Macroeconomics

Unit 1: Money and Banking (APRIL)

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, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Targeted Skills: Understanding, Analytical & Application

Activity- Make a chart using art and craft material showing the monetary instruments of RBI along with the current rates(21st Century Skill of Creativity)

Unit 2: Government Budget and the Economy (MAY)

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.

Targeted Skills: Understanding, Analytical, Application, Evaluation and Calculation

Activity– Give highlights and some facts of new budget presented for the year with your views on the good and the improvement points about the budget (**21st Century Skill of problem solving**)

Unit 3 : Balance of Payments (MAY)

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

Targeted Skills: Understanding, Analytical & Application

Activity- Compare the exchange rates of Indian rupee with US dollar of previous five year using time series graph (21st Century Skills of Media and technology literacy)

Unit 4: National Income and related aggregates (JULY)

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

Targeted Skills: Understanding, Analytical, Application, Evaluation and Calculation

Activity- Project Work on the topic(21st Century Skills of Media, problem solving, creativity, critical thinking, innovation and technology literacy)

Unit 5: Determination of Income and Employment (AUGUST)

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

Targeted Skills: Understanding, Analytical, Application, Evaluation and Calculation

Activity- Project work on the topic (**21st Century Skills of Media, problem solving, creativity, critical thinking, innovation and technology literacy**)

Part B: Indian Economic Development

Unit 6: Development Policies and Experience (1947-90) (SEPTEMBER & OCTOBER)

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.

Targeted Skills: Understanding, Analytical & Application

Activity- Draw a mind map to show the state of Indian economy on the eve of independence on various sectors **(21st Century Skill of Creativity)**

Unit 7: Economic Reforms since 1991 (OCTOBER)

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

Targeted Skills: Understanding, Analytical & Application

Activity- Draw a table of various GST slabs levied on any 5 sectors of the Indian economy **(21st Century Skill of problem solving& technology literacy)**

Unit 8: Current challenges facing Indian Economy: Part I (OCTOBER)

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

Targeted Skills: Understanding, Analytical & Application

Activity- Power Point Presentation on any one of the above challenges of Indian economy (**21st Century Skills of Collaboration, Communication and Technology literacy**)

Unit 9: Current challenges facing Indian Economy: Part II (NOVEMBER)

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

Targeted Skills: Understanding, Analytical & Application

Activity- Inter Section debate Competition on the Concept of Sustainable Development (**21st Century Skill Collaboration and Information Literacy**)

Unit 10: Development Experience of India (NOVEMBER)

A comparison with neighbours

India and Pakistan

India and China

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

Targeted Skills: Understanding, Analytical & Application

Activity- Group discussion on the developmental indicators of the three countries (**21st Century Skills of Collaboration, Communication and Technology literacy**)

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

Subject : Business Studies

1. PRINCIPLES AND FUNCTIONS OF MANAGEMENT, Class XII, NCERT-I

2. BUSINESS FINANCE AND MARKETING, CLASS XII, NCERT-II

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. Globalization has changed the way organizations transact their business. Information Technology is becoming a part of business operations in more and more organisations. Computerized 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 will prepare students to analyze, 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 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;
- To develop a business attitude and skills in students.
- To inculcate appropriate attitude and develop skills among students to pursue higher education.

Business Studies

CLASS-XII

Theory: 80 Marks

Project: 20 Marks

3 Hours

Units		Periods	Marks
Part A	Principles and Functions of Management		
1.	Nature and Significance of Management	12	16
2	Principles of Management	14	
3	Business Environment	12	
4	Planning	14	14
5	Organising	15	
6	Staffing	16	20
7	Directing	15	
8	Controlling	12	
	Total	110	50
Part B	Business Finance and Marketing		
9	Financial Management	20	15
10	Financial Markets	18	
11	Marketing Management	30	15
12	Consumer Protection	12	
	Total	80	30
Part C	Project Work (One)	30	20

Part C: Project Work

Marking Scheme for project work:

S.NO.	Heading	Marks Allotted
1.	Initiative, cooperativeness and participation	2
2.	Creativity in presentation	2
3.	Content, observation and research work	4
4.	Analysis of situations	4
5.	Viva	8
	Total	20 Marks

**Suggested Question Paper Design
Business Studies (Code No. 054)
Class XII (2024-25)
March 2025 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	44	55%
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way	19	23.75%
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.	17	21.25%
Total		80	100%

TENTATIVE ASSESSMENT SCHEDULE : 2024-25

SR. NO.	ASSESSMENT	MARKS	TIME PERIOD	SYLLABUS
1	UNIT TEST - 1	25	MAY	UNIT : 1
2	UNIT TEST - 2	25	JULY-AUGUST	UNITS : 2&3
3	TERMINAL	80	SEPTEMBER	UNITS : 1 - 5
4	UNIT TEST - 3	25	NOVEMBER	UNITS : 6&7
5	CBT	80	DECEMBER	UNITS : 6 - 10
6	PRE-BOARD	80	JANUARY	UNITS : 1 - 10

DIVISION OF MARKS: UNIT TEST (M.M.: 25)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
5	1	5
2	3	6
2	4	8
1	6	6

DIVISION OF MARKS: TERMINAL EXAM, CBT & PREBOARD (M.M.: 80)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
20	1	20
4	3	12
6	4	24
4	6	24

PART A: PRINCIPLES AND FUNCTIONS OF MANAGEMENT

UNIT1: Nature and significance of Management:

- Management - Concept, Objectives and Importance
- Management as Science, Art and Profession.
- Levels of management
- Management functions - Planning, Organizing, Staffing, Directing and Controlling.
- Coordination – Concept and Importance.

Targeted Skills: Understanding, Analysis and Application.

Activity- (21stCentury Skills-Social and cultural awareness and Technology literacy.)

Online visit (Website) of a business unit and find out what are their objectives and categorize them in economic, social and personal categories. Submit report for the same.

UNIT 2(a): Principles of Management: (APRIL-MAY)

- Principles of Management - Concept, and Significance
- Fayol's Principles of Management
- Taylor's Scientific Management - Principles and Techniques.
- Compare the contributions of Fayol and Taylor.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills- Creativity & digital literacy)

Prepare PPT on any organisation and find out whether they are using Fayol's or Taylor's principles of management and what benefits they are deriving from these principles.

UNIT 2(b): Business Environment: (MAY)

- Business Environment - Concept and Importance.
- Dimensions of Business Environment - Economic, Social, Technological, Political and Legal
- Demonetization - concept and features.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills-information literacy and Social and cultural awareness)

Prepare project on Changing role of the women in the past 25 years relating to joint families, nuclear families, women as bread earners of the family.

UNIT 3: (a) Planning: (MAY)

- Concept, Importance and Limitations.
- Planning Process.
- Single use and standing plans. Objectives, Strategy, Policy,

Procedure, method, Rule, budget and Programme.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills- Creativity and Information Literacy.)

Prepare a mind map on various types of plans followed in an educational institute.

UNIT 3 (b) Organizing: (JULY)

- Concept and importance
- Organizing Process.
- Structure of organization - Functional and Divisional. Formal and informal organisation- concept
- Delegation: Concept, Elements and Importance.
- Decentralization: Concept and Importance.
- Differentiate between delegation and decentralization.

Targeted Skills: Understanding, Analysis and Application.

Activity (21st Century Skill Creativity, Flexibility and Initiative)

Students will give presentation on under mention points : Difference between delegation and decentralisation; Formal and Informal Communication.

UNIT 4: Staffing (JULY-AUGUST)

- Concept and Importance of Staffing.
- Staffing as a part of Human Resource Management Concept
- Staffing Process
- Recruitment - Sources, merits and demerits of internal and external

sources of recruitment.

- Selection - Process
- Training and Development - Concept and Importance.
- Methods of Training- On the job and off the job- Vestibule training, Apprenticeship training and Internship training.

Targeted Skills: Understanding, Analysis and Application.

Activity (21st Century Skills of Media and technology literacy)

Online Visit a firm and find out recruitment policy. What source of recruitment they are using and why?

UNIT 5: Directing: (AUGUST)

- Concept and importance
- Elements of Directing
- Motivation - Concept, Maslow's hierarchy of needs; financial and non-financial incentives.
- Leadership - Concept, Styles - Authoritative, Democratic and Laissez faire.
- Communication - Concept, Formal and Informal Communication; barriers to effective communication, suggestions to overcome the barriers.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills-Creativity & Digital Literacy.)

Prepare a PPT on different types of motivational incentives(Financial and non-financial incentives).

UNIT 6: Controlling: (AUGUST)

- Concept and Importance
- Relationship between planning and controlling
- Steps in the process of Control.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills- Critical Thinking and Problem solving.)

Analyze the controlling process of a company.

Part B: Business Finance and Marketing

UNIT 7: Financial Management: (OCTOBER)

- Concept, Role and Objectives of Financial Management.
- Financial Decisions: Investment, Financing and Dividend: Meaning and Factors affecting.
- Financial planning - Concept and Importance.
- Capital Structure - Concept and Factors affecting capital structure.
- Fixed and Working Capital - Concept and Factors affecting their requirements.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills- Critical Thinking and Problem solving and calculation.)

Students are tasked with researching the utilization of debt within a company's capital structure and its impact on earnings per share (EPS) through an analysis of earnings before interest and taxes (EBIT) and EPS.

UNIT 8: Financial Markets: (NOVEMBER)

- Financial Markets: Concept
- Money Market: Concept
- Capital market and its Types (Primary and Secondary)
- Stock Exchange – Meaning, functions and trading procedure.
- Securities and Exchange Board of India (SEBI) - Objectives and Functions.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21 st Century Skills of Media and technology literacy)

Prepare a brief report on the history of Stock Exchange in India and prepare a list of 25 companies listed on Stock Exchange and make an imaginary portfolio.

UNIT 9: Marketing Management: (NOVEMBER)

Marketing: Management Concept, functions and Philosophies

- Marketing Mix - Concept and Elements
 - Product – Branding, Labelling and Packaging- concept.
 - Price – Concept, Factors determining price.
 - Physical Distribution- Concept, components and channels of distribution
 - Promotion -Concept and Elements; Advertising, Personal Selling, Sales Promotion and Public Relations.

Targeted Skills: Understanding, Analysis and Application.

Activity – (21st Century Skills-Collaboration, Initiative and Information literacy)

I Project on marketing mix.

UNIT 10: Consumer Protection: : (NOVEMBER)

- Concept and Importance of Consumer Protection.
- The Consumer Protection Act, 2019:

Source:<http://egazette.nic.in/WriteReadData/2019/210422.pdf>

- Meaning of consumer.
- Rights and responsibilities of consumers.
- Who can file a complaint?
- Redressal machinery.
- Remedies available.
- Consumer awareness - Role of consumer organizations and non-Governmental Organizations (NGOs).

Targeted Skills: Understanding, Analysis and Application.

Activity–(21st Century Skills- Critical Thinking, Creativity and Adaptability.)

Prepare a questionnaire to interview a consumer and find out whether he is aware about his rights, responsibilities etc.

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

Subject : Accountancy

Prescribed Books:

Accountancy I	Class XII	NCERT Publication
Accountancy II	Class XII	NCERT Publication

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 provides 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.

DISTRIBUTION**100 MARKS**

Accountancy (Code No. 055)
Class-XII (2023-24)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units	Periods	Marks
Part A Accounting for Partnership Firms and Companies		
Unit 1. Accounting for Partnership Firms	105	36
Unit 2. Accounting for Companies	45	24
	150	60
Part B Financial Statement Analysis		
Unit 3. Analysis of Financial Statements	30	12
Unit 4. Cash Flow Statement	20	8
	50	20
Part C Project Work	20	20
Project work will include:		
Project File	12 Marks	
Viva Voce	8 Marks	
Or		
Part B Computerized Accounting		
Unit 4. Computerized Accounting	50	20
Part C Practical Work	20	20
Practical work will include:		
Practical File 12 Marks		
Viva Voce 8 Marks		

Suggested Question Paper Design
Accountancy (Code No. 055)
Class XII (2024-25)

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	44	55%
3	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	23.75%
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.	17	21.25%
TOTAL		80	100%

TENTATIVE ASSESSMENT SCHEDULE: 2024-25

SR. NO.	ASSESSMENT	MARKS	TIME PERIOD	SYLLABUS
1	UNIT TEST - 1	25	MAY	UNIT: 1
2	UNIT TEST - 2	25	JULY-AUGUST	UNITS: 2&3
3	TERMINAL	80	SEPTEMBER	UNITS: 1 – 5
4	UNIT TEST - 3	25	NOVEMBER	UNITS: 6&7
5	CBT	80	DECEMBER	UNITS: 6 – 10
6	PRE-BOARD	80	JANUARY	UNITS: 1 – 10

DIVISION OF MARKS: UNIT TEST (M.M.: 25)

QUESTIONS	MARK/MARKS	TOTAL MARKS
5	1	5
2	4	8
2	6	12
		25

DIVISION OF MARKS: TERMINAL EXAM, CBT & PREBOARD (M.M.: 80)

QUESTIONS	MARK/MARKS	TOTAL MARKS
20	1	20
6	3	18
3	4	12
5	6	30
		80

PART-A**ACCOUNTING FOR PARTNERSHIP FIRMS AND COMPANIES****UNIT-1 FUNDAMENTALS OF PARTNERSHIP (APRIL)**

- 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).
- Guarantee of profits.
- Past adjustments (relating to interest on capital, interest on drawing, salary and profit-sharing ratio).

Note:

Interest on partner's loan is to be treated as a charge against profits.

Targeted Skills: Understanding, Analytical and Calculation

Activity – (21st Century Skills- Critical Thinking and Problem solving.)

You are running a SOLE proprietor business and facing difficulties in managing business and also require some funds how you will take the above said problems?

UNIT-2 VALUATION OF GOODWILL (MAY)

Goodwill: Meaning, nature, factors affecting and methods of valuation - average profit, super profit and capitalization.

Note:

Goodwill: meaning, factors affecting, need for valuation, methods for calculation (average profits, super profits and capitalization), adjusted through partners capital/ current account.

Targeted Skills- Understanding, Analytical and Calculation

Activity (21st Century Skills- Creativity and Innovation)

The stock of many well-known companies is worth more than the value of their assets. To cite notable examples, the majority of Coca-Cola's share value is not in its brick-and mortar bottling plants, but instead in the brand name and "secret formula" of its storied soft drink brand.

UNIT- 3 Accounting for Partnership firms – Reconstitution (MAY)

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.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skills of Critical Thinking and Information

Literacy)

Correlating with real life situations Live discussions with students.

Discussion with students that why it is necessary to distribute accumulated reserve and profit already exist in books among old partners?

UNIT-4 Accounting for Partnership firms – Reconstitution (Admission of a partner) (JULY)

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, adjustment of capital accounts and preparation of capital, current account and balance sheet.

Targeted Skills- Understanding, Analytical and Calculation.

Activity(21st Century Skill Creativity and Information Literacy)

Why new partner is not entitled to have any share in above said items?
Correlating with real life situations Live discussions with students
Discussion with students that why it is necessary to distribute accumulated reserve and profit already exist in books among old partners?

UNIT-5 Accounting for Partnership firms – Reconstitution 5 (A) Retirement and death of a partner) (JULY-AUGUST)

- 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.

Targeted Skills- Understanding, Analytical and Calculation.

Activity(21st Century Skill Collaboration, Flexibility, Initiative and Information Literacy)

Section 32 in The Indian Partnership Act, 1932 Circumstances under which retirement can be done (1) A partner may retire, — (a) with the consent of all the other partners, (b) in accordance with an express agreement by the partners, or (c) Where the partnership is at will, by giving notice in writing to all the other partners of his intention to retire. Calculation of retired/deceased partner's share of profit till the date of retirement /death. Preparation of retired/deceased partner's capital account and his executor's account.

UNIT-5 Accounting for Partnership firms –

5(B) Dissolution of a Partnership Firm (AUGUST)

- 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)).

Note:

(i) If the realized value of tangible assets is not given it should be considered as realized at book value itself. (ii) If the realized value of intangible assets is not given it should be considered as nil (zero value).

(ii) In case, the realization expenses are borne by a partner, clear indication should be given regarding the payment thereof.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Creativity, Flexibility and Initiative)

Teacher will discuss and explain the under-mentionpoints: Difference between dissolution of partnership and partnership firm Difference between revaluation and realization account Journal entries format and preparation

of realization account and cash account.

UNIT-6 Accounting for Companies (Share Capital) (OCTOBER)

- Accounting for Share Capital.
- Features and types of companies.
- Share and share capital: nature and types.
- Accounting for share capital: issue and allotment of equity and preference shares. Public subscription of shares - over subscription and under subscription of shares; issued 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 reissue of shares. Disclosure of share capital in the Balance Sheet of a company.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Collaboration and Information Literacy)

Discussion in class regarding the difference between equity and preference shares with reference to the source of business finance (Class XI Business Studies) Explanation and discussion on concept of employee stock option plan including private placement of share. Journal entries to be passed at the time of issue of shares.

UNIT-7 Accounting for Debentures (OCTOBER)

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.

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)

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skills of Media and technology literacy)

Students to research on Types of Debentures, Interest calculation, collateral security and Redemption aspect of Debentures issue.

PART-B FINANCIAL STATEMENT ANALYSIS

UNIT-8 Analysis of Financial Statements (NOVEMBER)

Financial statements of a Company: Meaning, Nature, Uses and importance of financial Statement. Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)

Note:

- Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded.
- Financial Statement Analysis: Meaning, Significance Objectives, importance and limitations.
- Tools for Financial Statement Analysis: Comparative statements, common size statements, Ratio analysis, Cash flow analysis.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skills of Media and technology literacy)

Teacher will show the cutting of any company's Balance Sheet and explain each and every item of financial Statement Discussion on usefulness of various tools of analyzing the financial statement. Teacher will draw and discuss the various tools used for analyzing of financial statement. Comparative statements, common size statements.

UNIT-9 Accounting Ratios: (NOVEMBER)

- 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.

Note: Net Profit Ratio is to be calculated on the basis of profit before and after tax.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skills of Collaboration, Communication and Technology literacy)

Preparation of Analysis of Statement of Profit and Loss and Balance Sheet of a listed company to comprehend the knowledge gained of Ratio Analysis as tool of Financial Statement Analysis.

UNIT-10 Cash Flow Statement (NOVEMBER)

Meaning, objectives Benefits, Cash and Cash Equivalents, Classification of Activities and preparation (as per AS 3 (Revised) (Indirect Method only)

Note:

- (i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.
- (ii) Bank overdraft and cash credit to be treated as short term borrowings.

(iii) Current Investments to be taken as Marketable securities unless otherwise specified.

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

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skills of Media and technology literacy)

Discussion on concept of cash flow statement. Preparation of format of cash flow (as per AS 3 (Revised) (Indirect Method only).

Preparation of cash flow statement and accounting treatment of various adjustments relating to depreciation and amortization, profit or loss on sale of assets includes investments, dividend (both final and interim) and tax.

Preparation of project work on Cash Flow as tool of analysis of Financial Statements of a listed company.

Part C: Practical Work

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

REVISION OF SYLLABUS (DECEMBER, 2024 ONWARDS)

Subject : Physical Education

Prescribed Books:

THEORY	Class XII	SP Publication
PRACTICAL	Class XII	SP Publication

RATIONALE

Sri Aurobindo believed, “For the body to be effective physical education must be rigorous and detailed, far-sighted and methodological. This will be translated into habits. These habits should be controlled and disciplined while remaining flexible enough to adapt them selves to circumstances and to the needs of growth and development of the being”.

Physical education programs at all levels help students develop the knowledge, skills, attitudes, values, and behaviours to initiate and maintain a physically active lifestyle that will continue into and through adulthood. Students are encouraged to use physical activity to develop personal initiative, responsibility, and caring about others and the community. A positive, supportive environment is essential to the success of the physical education program. This inclusive learning environmental lows students to experience positive, challenging, and enjoyable physical activity while learning the benefits and importance of such action. Such an environment accommodates a variety of individual differences such as cultural identity, previous movement experiences, fitness and skill levels, and intellectual, physical, and socio-emotional maturity.

Appropriate instruction in physical education incorporates best practices derived from research and experiences in teaching students. This physical education curriculum sets forth developmental and instructional proper rules in designing, implementing, and evaluating physical education programs.

LEARNING OBJECTIVES

1. Optimum Development of Child's Physical Growth, Including Intellectual Development, Emotional Development, Social Development, Personal Development, and Character Building.
2. Imparting and Development of Positive Approach among Children to opt for Physical Education as a Profession.
3. Developing Management Skills to Understand and Organize Sports Tournaments.
4. Learn and Understand the Motor Abilities like Strength, Speed, Endurance, Coordination, And Flexibility.
5. Acquire knowledge about the Human Body and Its Functioning and Effects on Physical Activities.
6. Understand the Process of Growth and Development and its Positive Relationship with Physical Activities.
7. Develop Socio-Psychological Aspects like Control of Emotions, Balanced Behavior, Development of Leadership and Followership Qualities, and Team Spirit.
8. Learn and Understand the Effect of Physical and Physiological Training on Women Athletes.
9. Develop the Habit of Practicing Yoga Asanas and Pranayama Daily to Minimize Hypokinetic Diseases.
10. Learning about Nutrition and the Importance of a Balanced Diet.
11. Understand the application of Laws and Principles of Physics in Sports and Games.
12. Understanding the Characteristics of Children with Special Needs (CWSN) and Learning the Importance of Physical Activates for them.

13. Learning the procedure and application of different Physical and Physiological tests for different Age Categories.

14. Learning and understanding different Games and Sports

CLASS XII COURSE STRUCTURE

UNIT NO.	UNIT NAME	NO. OF PERIODS (190 HRS)	THE WEIGHTAGE (MARKS) ALLOTTED
UNIT 1	Management of Sporting Events	15	05 + 04b*
UNIT 2	Children and Women in Sports	12	07
UNIT 3	Yoga as Preventive measure for Lifestyle Disease	12	06+01 b*
UNIT 4	Physical Education & Sports For (CWSN)	13	04+04 b*
UNIT 5	Sports & Nutrition	12	07
UNIT 6	Test and Measurement in Sports	13	08
UNIT 7	Physiology & Injuries in Sport	13	04+04 b*
UNIT 8	Biomechanics and Sports	18	10
UNIT 9	Psychology and Sports	12	7
UNIT 10	Training in Sports	15	09
PRACTICAL	Including 3 Practical	56	30
TOTAL	Theory 10 + Practical 3	134 + 56 = 190hrs	Theory 70 + Practical 30 = 100
Note: b*are the Concept based questions like Tactile diagram/data interpretation/case base study for visually Impaired Child			

TENTATIVE ASSESSMENT SCHEDULE: 2024-25

SR. NO.	ASSESSMENT	MARKS	TIME PERIOD	SYLLABUS
1	UNIT TEST - 1	25	MAY	UNIT : 1
2	UNIT TEST - 2	25	JULY-AUGUST	UNITS : 2&3
3	TERMINAL	70	SEPTEMBER	UNITS : 1 - 5
4	UNIT TEST - 3	25	NOVEMBER	UNITS : 6&7
5	CBT	70	DECEMBER	UNITS : 6 - 10
6	PRE-BOARD	70	JANUARY	UNITS : 1 - 10

DIVISION OF MARKS: UNIT TEST (M.M.: 25)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
3	1	3
3	2	6
2	3	6
2	5	10

DIVISION OF MARKS: TERMINAL EXAM, CBT & PREBOARD (M.M.: 70)

NO. OF QUESTIONS	MARK/MARKS	TOTAL MARKS
18	1	18
5	2	10
5	3	15
3	4	12
3	5	15

CLASS XII**COURSE CONTENT****Unit 1 Management of Sporting Events (APRIL)**

1. Functions of Sports Events Management(Planning, Organising, Staffing, Directing &Controlling)
2. Various Committees & their Responsibilities (pre; during& post)
3. Fixtures and their Procedures – Knock-Out(Bye & Seeding) &League (Staircase, Cyclic, Tabular method) and Combination tournaments.
4. Intramural & Extramural tournaments – Meaning, Objectives & Its Significance
5. Community sports program (Sports Day, Health Run, Run for Fun, Run for Specific Cause &Run for Unity) (21st Century Skills of problem solving, Collaboration)

PRACTICAL-General Fitness-Warming up and cooling down

Unit 2 Children & Women in Sports (MAY)

1. Exercise guidelines of WHO for different age groups.

2. Common postural deformities-knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their corrective measures.
3. Women's participation in Sports–Physical, Psychological, and social benefits.
4. Special consideration(menarche and men strualdys function)
5. Female athlete triad (osteoporosis, amenorrhea, eating disorders (21st Century Skills of critical thinking, Communication)

PRACTICAL- Game-Fundamentals skills of Volleyball.

Unit 3 Yoga as Preventive measure for Lifestyle Disease (JULY)

1. Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha–Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhanpranayama.

2. Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta vajarasana, Paschimottanasana-a, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.

3. Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasan a, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma-Viloma.

4. Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakransan, Uttanpadasana, ArdhaHalasana, SaralaMatyasana, Gomukhasana, UttanMandukasan-a, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-shodhanapranayam, Sitlipranayam.

5. Back Pain and Arthritis: Procedure, Benefits & Contraindications of Tadasan, Urdhawahastootansana, Ardh-Chakrasana, Ushtrasana,

Vakrasana Sarala Maysyendrsana, Bhujandgasana, Gomukhasana, Bhadrasana, Makarasana, Nadi-Shodhana pranayama.

(21st Century Skills of Information Literacy and Communication)

PRACTICAL- Practice of yoga asana, meditation and pranayama

Unit 4 Physical Education and Sports for CWSN (Children with Special Needs -Divyang) (JULY)

1. Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
2. Concept of Classification and Divisioning in Sports.
3. Concept of Inclusion in sports, its need, and Implementation;
4. Advantages of Physical Activities for children with special needs.
5. Strategies to make Physical Activities assessable for children with special needs.

(21st Century Skills of Information Literacy and Communication)

PRACTICAL- Athletics Events-Short, middle and long races

Unit 5 Sports & Nutrition (AUGUST)

1. Concept of balanced diet and nutrition
2. Macro and Micro Nutrients: Food sources & functions
3. Nutritive & Non-Nutritive Components of Diet
4. Eating for Weight control– A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths
5. Importance of Diet in Sports-Pre, During and Post Competition Requirements

(21st Century Skills of Information Literacy and Communication)

PRACTICAL- Game-Volleyball-Fundamental skills

Unit 6 Test & Measurement in Sports (AUGUST)

1. Fitness Test – SAI Khelo India Fitness Test inschool: Age group 5-8 years/

class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit& Reach flexibility test, Strength Test (Partial Abdominal Curl Up, Push-Ups for boys, Modified Push-Ups for girls).

2. Measurement of Cardio-Vascular Fitness – Harvard Step Test –Duration of the Exercise in Seconds x100/5.5 XPulse count of 1-1.5 Minafter Exercise.

3. Computing Basal Metabolic Rate (BMR)

4. Rikli& Jones – Senior Citizen Fitness Test Chair Stand Test for lower body strength Arm Curl Test for upper body strength Chair Sit & Reach Test for lower body flexibility Back Scratch Test for upper body flexibility Eight Foot Up & Go Test for agility Six-Minute Walk Test for Aerobic Endurance

5. Johnsen – Methney Test of Motor Educability (Front Roll, Jumping Half Turn, Jumping full-turn (**21st Century Skills of Risk Taking, Understanding, Analytical & Application**))

PRACTICAL -Motor Fitness test

Unit 7 Physiology & Injuries in Sport (SEPTEMBER & OCTOBER)

1. Physiological factors determining components of physical fitness
2. Effect of exercise on the Muscular System
3. Effect of exercise on the Cardio-Respiratory System
4. Physiological changes due to aging
5. Sports injuries: Classification (Soft Tissue Injuries -Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries -Dislocation, Fractures -Green Stick, Comminuted, Transverse Oblique & Impacted) (21st Century Skills of Understanding, Analytical & Application)

PRACTICAL - Senior Citizen Fitness Test

Unit 8 Biomechanics and Sports (OCTOBER)

1. Newton's Law of Motion &its application in sports

2. Types of Levers and their application in Sports.
3. Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports
4. Friction & Sports
5. Projectile in Sports (**21st Century Skills of Media, critical thinking**)

PRACTICAL- Practice of Meditation and Pranayama

Unit 9 Psychology and Sports (OCTOBER & NOVEMBER)

1. Personality; its definition & types (Jung Classification & Big Five)
2. Motivation, its type & techniques.
3. Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it
4. Meaning, Concept & Types of Aggressions in Sports
5. Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self-Talk, Goal Setting Theory (**21st Century Skills of Media, problem solving, critical thinking**)

PRACTICAL-Game-Volleyball-Rules and Terminologies

Unit 10 Training in Sports (NOVEMBER)

1. Concept of Talent Identification and Talent Development in Sports
2. Introduction to Sport training Cycle – Micro, Meso, Macro Cycle.
3. Types & Methods to Develop – Strength, Endurance, and Speed.
4. Types & Methods to Develop – Flexibility and Coordinative Ability.
5. Circuit Training -Introduction & its importance

(21st Century Skill Collaboration)

PRACTICAL-Isometric, Isotonic, Isokinetic exercise

**GUIDELINES FOR INTERNAL ASSESSMENT
(PRACTICAL/ PROJECTS ETC.)**

PRACTICAL (Max. Marks 30)

Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* 6 Marks

Proficiency in Games and Sports (Skill of any one IOA recognized Sport/Game of Choice)** 7 Marks

Yogic Practices 7 Marks

Record File *** 5 Marks

Viva Voce (Health/ Games & Sports/ Yoga) 5 Marks

- *Test for CWSN (any 4 items out of 27 items. One item from each component: Aerobic Function, Body Composition, Muscular strength & Endurance, Range of Motion or Flexibility)

- **CWSN (Children with Special Needs – Divyang): Bocce/Boccia, Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of choice.

- **Children with Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/Game must be different from Test - 'Proficiency in Games and Sports'

- ***Record File shall include:

Practical-1: Fitness tests administration. (SAI Khelo India Test)

Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

Practical-3: Anyone one IOA recognized Sport/Game of choice. Labelled diagram of Field & Equipment. Also, mention its Rules, Terminologies & Skills.

Subject : Information Technology (802)

Perscribed Books:-

1. **Employability Skills – Class XII (Part – A)**
2. **Database Management Applications – Class XII(Part – B)**

Publisher: NCERT

Rationale

The present course curriculum offers an opportunity for students to understand the basics of computer software and hardware for working efficiently on computer. This course will enable students to hone skills to develop desktop based applications etc. With extensive demand of designers, the course aims at inculcating not only programming skills but also the understanding of graphics. Graphics in itself is a wide and very interesting area which helps in shaping the creativity of a student.

Objectives: The course will equip students with skills to analyze various problems and their trouble shooting. Content of the course has been designed as such to make students capable of independently working on a desktop and be able to develop applications to handle computations of small scale and record keeping.

Students will develop following skills:

- It will empower students with various skills required to work efficiently on computer.
- Understand basic functional and computational units.
- Understand networking and internet concepts
- Recognize various internet devices and threats to cyber security.
- Skills to work efficiently with basic office tools like word, spreadsheets, presentation
- Understand basics of databases and SQL to handle databases

- Develop programming skills in Java

Through this course students will not only gain knowledge about the basics of computer but will also develop confidence in developing small applications through programming.

COURSE STRUCTURE

	Unit	MAX. MARKS for Theory and Practical
Part A	Employability Skills	
	Unit 1 : Communication Skills - IV*	2
	Unit 2 : Self-Management Skills - IV	3
	Unit 3 : ICT Skills - IV	1
	Unit 4 : Entrepreneurial Skills - IV	3
	Unit 5 : Green Skills - IV*	1
	Total	10
Part B	Subject Specific Skills	Marks
	Unit 1 : Database Concepts - RDBMS Tool	15
	Unit 2 : Operating Web Based Applications	10
	Unit 3 : JAVA - Fundamentals of Java programming, introduction to Java, Object Oriented Programming, Java Language Elements, Operators, Control Flow, Array, Class Design, Exception Handling, Assertions, Threads, Wrapper Classes, String Manipulation	20
	Unit 4 : Work Integrated Learning IT - DMA	5
	Total	50
Part C	Practical Work :	
	Java Program	10
	SQL Queries (Table Creation + 5 Queries)	10
	Practical File : Must contain minimum 15 Java Programs and minimum 15 queries in MySQL	10
	Viva	5
	Total	35
Part D	Project Work (Any application made using Java Netbeans IDE)	5
	Total	5
	GRAND TOTAL	100

Note : Submit your Practical file and Project File

Suggestive Question Paper Pattern
(Session 2024-2025)

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 24 questions in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (6+18=) 24 questions, a candidate has to answer (6+11=) 17 questions in the allotted (maximum) time of 3 hours.
5. All questions of a particular section must be attempted in the correct order.

6. SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):

- i. This section has 06 questions.
- ii. There is no negative marking.
- iii. Do as per the instructions given.
- iv. Marks allotted are mentioned against each question/part.

7. SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):

- i. This section contains 18 questions.
- ii. A candidate has to do 11 questions.
- iii. Do as per the instructions given.

Marks allotted are mentioned against each question/part.

DIVISION OF MARKS:

QUESTIONS	MARK/MARKS	TOTAL MARKS
4	1	4
4	2	8
2	4	8
5	1	5
	TOTAL	25

DIVISION OF MARKS: TERMINAL EXAM, CBT & PREBOARD (M.M.: 60)

QUESTIONS	MARK/MARKS	TOTAL MARKS
30	1	30
6	2	12
2	3	06
3	4	12
	TOTAL	60

UNIT-1: (APRIL)

CHAPTER-1 COMMUNICATION SKILLS - IV: Active Listening, Parts of Speech ,Writing Sentences.

Activity (21st Century Skills of Communication and Technology literacy):-Make a mind Map of different stages of Active listening

CHAPTER-2 DATABASE CONCEPTS – RDBMS TOOL Basics of RDBMS, SQL – Creating and Opening Database, Creating and populating tables.

Targeted Skills: Understanding, Analytical, Creating a database

Activity (21st Century Skill Critical Thinking and Information Literacy):-

Table Name: Employee

Write SQL commands for the following:

- (a) Create the above table.
- (b) Insert values as shown above.
- (c) Delete the Employee having Employee_ID 1217.
- (d) Update the salary of “Amyra” to 40000.

Employee_ID	Employee_Name	Job_Title	Salary	Bonus	Age	Manager_ID
1201	Divya	President	50000	NULL	29	NULL
1205	Amyra	Manager	30000	2500	26	1201
1211	Rahul	Analyst	20000	1500	23	1205
1213	Manish	Salesman	15000	NULL	22	1205
1216	Megha	Analyst	22000	1300	25	1201
1217	Mohit	Salesman	16000	NULL	22	1205

UNIT-2: DATABASE CONCEPTS – RDBMS TOOL (MAY)

Modifying the content and structure of table, Ordering and Grouping, Operating with multiple tables.

Targeted Skills: Understanding, Creating a database

Activity (21st Century Skill, Critical Thinking, Problem solving and Information Literacy):-

Consider the following Employee table:

Table Name: Employee

The primary key of this table is Employee_ID and Manager_ID is a foreign key that references Employee_ID.

Write SQL commands for the following:

- (a) Alter the table Employee so that NULL values are not allowed for Age column.
- (b) Write a query to display names and salaries of those employees whose salary are greater than 20000.
- (c) Write a query to display details of employees who are not getting any bonus.
- (d) Write a query to display the names of employees whose name contains "a" as the last alphabet.
- (e) Write a query to display the name and Job title of those employees whose Manager_ID is 1201.
- (f) Write a query to display the name and Job title of those employees aged between 26 years and 30 years (both inclusive)

UNIT-3: SELF-MANAGEMENT SKILLS(MAY): Motivation and Positive Attitude, Result Orientation ,Self-awareness

Targeted Skills: Understanding, Analytical and Application

Activity(21st Century Skills- Creativity and Innovation):- Create a mind map of the sources of motivation and inspiration.

UNIT-4: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS-IV(JULY): Getting, Working with Data and Formatting Text ,Advanced Features in Spreadsheet, Presentation Software, Opening, Closing, Saving and Printing a Presentation, Working with Slides and Text in a Presentation ,Advanced Features used in Presentation

Targeted Skills: Understanding, Analytical and Application.

Activity(21st Century Skills-Collaboration, Creativity technology literacy and Innovation):-

1. Create a spreadsheet enter marks obtained in English, Hindi, Maths and Science of 5 students. Calculate the total marks and find its percentage by using formulae.

2. Make a Presentation in Libre Office Impress on Topic:- “ Online Education”

UNIT-5: OPERATING WEB BASED APPLICATIONS) (JULY- AUGUST):-

Online Reservation Systems, E-Governance, Online Shopping and Bill payments, Online Tutorials and Tests Project Management – Web Based Application development.

Targeted Skills: Understanding, Analytical and Application.

Activity (21st Century Skills of Media and technology literacy)

- Make a PPT on “Web based Applications”

UNIT-6: ENTREPRENEURIAL SKILLS–IV(OCTOBER): Entrepreneurship and Entrepreneur, Barriers to Entrepreneurship, Entrepreneurial Attitudes , Entrepreneurial Competencies

Targeted Skills: Understanding, Analytical and Application.

Activity (21st Century Skill Creativity, Flexibility and Initiative)

Make a table of Qualities and Functions of a successful Entrepreneur.

FUNDAMENTALS TO JAVA PROGRAMMING:-Introduction to Java, Data types and variables , Operators, Control Flow.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Collaboration and Information Literacy)

Practicals:-

1. Create a program to find total marks and percentage of a student.
2. Create a program to find Square of a number.
3. Create a program to find Area of rectangle.

UNIT 7: FUNDAMENTALS TO JAVA PROGRAMMING (OCTOBER):-

Array, User defined methods, Object Oriented Programming , Class Design, Java Libraries, Exception Handling

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Collaboration, Flexibility, Initiative and Information Literacy)

Practicals:-

1. Create a program in Java by importing libraries
2. Write a program to sort the marks using arrays.
3. Write a program to search the position of a number .
4. Write a program in java to print the square of every alternate number of an array.

UNIT 8:- FUNDAMENTALS TO JAVA PROGRAMMING(NOVEMBER):-

Database Connectivity, Assertions, Threads, Wrapper Classes.

Targeted Skills- Understanding, Analytical and Calculation.

Activity (21st Century Skill Collaboration, Critical thinking, Initiative and Information Literacy)

Practicals:-

1. Write a program in Java to enable user to handle divide by Zero exception.
2. Write a program to check whether input number is prime or not.
3. Write a program to find reverse of a number using while loop .
4. Write a program to check vowel or consonant using Switch case .

UNIT 9:- WORK INTEGRATED LEARNING IT– DMA(NOVEMBER):-

Identification of Work Areas, Work Experience.

Targeted Skills: Understanding, Analytical and Application.

Activity : (21st Century Skills of Media and technology literacy)- Create a project in any potential Work area in JAVA Netbeans and SQL.

UNIT-10: GREEN SKILLS – IV (NOVEMBER- DECEMBER): Green Jobs, Importance of Green Jobs

Targeted Skills: Understanding, Analytical and Application.

Activity:- Write an article on Initiatives taken by Govt. of India for “Clean India Green India”. What will be your contribution .

Note: Submit your Practical file and Project File