Holiday Homework

CLASS XI (2025-26)

Tiny tasks, big gains!

INDEX

SEWA PROJECT

"This SEWA project aims to foster social responsibility, empathy, and active citizenship among students. Through hands-on community engagement, we strive to make a positive impact while developing essential life skills. This project is an integral part of our internal assessment and holistic educational growth."

Project-1: 'Swachcha Vidyalaya Swachcha Bharat'

Project Focus- Cleanliness and Sanitation Key

Objectives:
Learner will:
- identify clean and dirty places.
- bring attitudinal change towards cleanliness and sanitation.
- be able to distinguish between benefits of cleanliness and the disadvantages of uncleanliness, including the health hazards.
- make the community aware of the result of not practising cleanliness.
- know the importance of cleanliness in neighbourhoods, parks, market places, roads and cities.
- know how to appeal for clean places.
- be aware of unclean and unhealthy surroundings as breeding ground of epidemics and diseases.
- be able to highlight cleanliness as an important value in day-to-day life.
- Develop a creative methodology to create awareness in community and test it

Project – 2: "Dignity of Labour"

Project Focus – Empathy and Compassion

Target Point-

We should respect people for their perseverance, hard work and effort. If we have to accord dignity to labour, social services must be commended and community has to be sensitive to individuals and learn to understand and respect them.

Key Objectives:

Learner will:
- understand the value of toil.
- understand the importance of different occupations in our social system – such as, ice- cream lorry, balloon man, chai stall, kite seller, bangle seller, knife sharpener, food lorry, etc.
- learn to respect people from different vocations of life. *
- understand and value of Human Rights.
- be empathetic and compassionate. *
- respect people despite nature of work involved in their vocations. *
- instill love for labour. *

Suggestive Activities:

- One group could contribute to community work by regularizing and facilitating the job of people from different walks of life in their respective areas/ apartment complexes by making them aware of hygiene, etc.
- Collect funds in cash / kind to recognize and reward the contribution of helpers on special occasions like New Year / Labour Day. Keep proper records of this collection.
- Organise a discussion in class where people were victimised due to their profession and how Human Rights were violated in such situations.
- Celebrate World Human Rights Day (10th December) and Labour Day (1st May).
- Address the issue through creative arts, perform street plays, interviews of the school helpers (getting to know them better).

Understand the importance of knowing how to work with the hand.

Project - 3: "Empathy"

Project Focus- Facilitating inclusivity

Target Point- The concern about the fate of others, the ability to realize another person's insecurities and fears and ability to put oneself in their shoes and willingness to extend a supportive hand makes for empathy.

Individuals, communities, countries will not be able to get socially empowered without EMPATHY.

It is also ability to appreciate, understand and accept other person's emotions. It improves inter- personal relations especially with people of different abilities, backgrounds, regions and nationalities.

Key Outcomes: Learner

will:
- be sensitive to the needs of others
- support inclusivity and develop a positive attitude
- develop compassion and value human life
- support and help people in distress
- develop a humane outlook
- express love, care and compassion towards the disadvantaged and CWSN (Divyang)
- be able to communicate the value of empathy
- understand the importance of inclusivity and support it
- sensitize peers as well as community members about inclusivity and help prepare a conducive environment for the same

Project - 4: Care for Homeless Children

Project Focus- Child Rights

Target Point- Groups as community volunteers participate in a programme to give happiness to children living in shelters. This would also increase awareness about the issue of homelessness. This SE project will also focus on every child's right for special protection and care. Children have the right to an adequate standard of living, health care, education and services, and to play and recreation.

Learning Outcomes:

Learner

- understands and appreciates every child's right to an optional standard of living, health care, education and services, and to play and recreation. These also include a balanced diet, a warm bed to sleep in, and access to schooling.
- is aware about issues of homelessness.
- develops empathy for other children who may be less privileged than them but not less creative or talented.
- expands their horizon of society and develop an understanding of child rights.
- assesses impact of one's work.
- supports underprivileged children.
- helps create a social environment that supports and respects every child's rights.
- develops deep insight into the living conditions of underprivileged children.

GUIDELINES

SEWA takes learning beyond the walls of the classroom and sometimes even beyond the boundaries of the school, building bridges with the authentic and real world in meaningful and positive ways. The following maybe noted with regard to SEWA:

- SEWA is an integral component of HPE.
- This aspect aims to focus on the mental/emotional and social health of the child

Objective:

There is an urgent need to foster strong mental and social health amongst today's children so that they can connect with their peers, their elders, the community, the environment, etc. The main objective of the SEWA projects is to direct children's mind in constructive activities with positive outcomes through the facilitation of creative and critical thinking. This would help them to develop self-confidence and self-esteem.

The learning outcomes expected to be developed and fostered through participation in SEWA are experiential:

The Learner:
- Develops Life Skills of **Self-Awareness and Empathy.** *
- Develops Creative and Critical Thinking Skills. *
- Becomes a **caring and compassionate** individual.*
- Responds as a socially empowered change maker. *
- Acquires the skills to be an active leader and initiator of change.

- Plans, implements and delivers projects connected to the real world.
- Visualizes and participates in a world going beyond the classroom and often/ sometimes beyond the boundaries of the school.
- Formulates strategies to deliver meaningful programs and projects
- Critiques premises as a **reflective enquirer**.
- Demonstrates fair play and **non-judgmental ethical behavior. ***
- Actively engages in SEWA activities as an individual and at a team level.
- Participates in various activities in **age appropriate ways across disciplines**.
- Selects and applies skills, facts and compositional ideas.
- **Competes with oneself** to improve **self-performance** and **evaluate strategies** for further enhancement. *
- Knows, understand and applies rules.

My SEWA Promise Form (illustrative)

Dear Student,

SEWA is a firm step to prepare you for life. It is a voluntary project experience. You have to complete **My SEWA Promise Form** and obtain prior approval for the activity/project. Selection of a SEWA activity, development, implementation of the proposal and evaluation of the activity is the responsibility of each student. Signature of the parent indicates review and approval of this proposal.

Student's Name: _____ Class: _____

(Print or type)

Brief Description of the Activity:

Duration (Days and Time):_____ Estimated Hours:_____

Name of Mentor Teacher:_____

Student Signature: _____Date:_____

Parent Signature:_____Date:_____

SEWA Hourly Schedule (illustrative)

Hour Count	Date and Day	Proposed Activity Plan
Hour 1		
Hour 2		
Hour 3		
Hour 4		
Hour 5		
Hour 6		

SEWA Hour Log (illustrative)

STUDENT NAME: _____

PROJECT: _____

Date	Activity	Hours	Mentor's Signature

PROJECT GUIDELINES (2025-2026)

SUBJECT	ACCOUNTANCY
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	1. Knowledge Content/Research Work and Presentation Technique 12 marks 2. Viva-voce 8 marks Total 20 Marks
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN in project file
GROUP/INDIVIDUAL	INDIVIDUAL

LIST OF EXPERIMENTS/TOPICS	1. **Collection of source documents**, preparation of vouchers, recording of transactions with the help of vouchers.
	2. **Preparation of Bank Reconciliation Statement** with the given cash book and the passbook with twenty to twenty-five transactions.
	3. **Comprehensive project** of any sole proprietorship business. This may state with journal entries and their ledgering, preparation of Trial balance. Trading and Profit and Loss Account and Balance Sheet. Expenses, incomes and profit (loss), assets and liabilities are to be depicted using pie chart / bar diagram. This may include simple GST-related transactions.
	4. It is suggested to undertake this project after completing the unit on preparation of **financial statements**. The student(s) will be allowed to select any business of their choice or develop the transaction of imaginary business. The project is to run through the chapters and make the project an interesting process. The amounts should emerge as more realistic and closer to reality.
	Choose any one from the given topics
	1. A beauty parlour 2. Men's wear 3. A coffee shop 4. Men's saloon 5. Ladies wear 6. A music shop. 7. A tailoring shop 8. Kiddies wear 9. A juice shop 10. A canteen

	11. A grocery shop 12. A stationery shop 13. A shoe shop After selection, student(s) are advised to visit a shop in the locality (this will help them to settle on a realistic amount of different items. The student(s) would be able to see the things as they need to invest in furniture, decor, lights, machines, computers etc At this stage, performas of bulk of originality and ledger is prepared by the students and they are asked to complete in proper format. In the next step the students are expected to prepare the trial balance and financial statements.

GUIDELINES

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

- Probe deeper into theoretical concepts learnt in classes XI (Basic Accounting Principles Journals, ledgers, Trial balance, Trading account, Profit and loss account and Balance sheet)
- To enable students to understand basic accounting principles, analysing financial statements, etc.
- To familiarize students with new and emerging areas in the preparation and presentation of financial statements.
- To acquaint students with basic accounting concepts and accounting standards.
- To develop the skills of designing need-based accounting database.
- To develop an understanding about recording of business transactions and preparation of financial statements.
- To enable students with accounting for Sole proprietorship and evaluate real-world financial position of company using theoretical constructs and arguments.
- To enable students to use clear headings and subheadings including text explanations, examples, diagrams, and charts to make your project more comprehensive.
- Discuss common challenges faced in accounting and how they can be addressed. This could include issues like fraudulent practices, errors in financial statements, etc.
- Summarize the key points covered in the project. Reinforce the importance of understanding accounting principles and their application in various contexts.
- Include a list of references/sources you used for your project. This could include textbooks, websites, articles, etc.

The expectations of the project work are that:
- learners will complete only **ONE project** in each academic session

- project should be of 3,500-4,000 words (including diagrams, flow chart, pictorials, real life financial

  statements of companies & graphs), preferably hand-written
- it will be an independent, self-directed piece of study

Scope of the project:

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

- Choose a title/topic
- Collection of the research material/data
- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

Expected Checklist:

- Introduction of topic/title
- Identifying the causes, consequences and/or remedies
- Advantages and disadvantages of situations or issues identified
- Validity, reliability, appropriateness, and relevance of data used for research work and for presentation in the project file
- Presentation and writing based on facts in project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

Mode of presentation/submission of the Project:

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

SUBJECT	XI
CLASS	PHYSICS
MARKS FOR PROJECT (MARKING SCHEME)	1. Clarity and relevance of the problem statement (2) 2. Appropriate presentation of content (3) 3. Research Skill (3) 4. Oral presentation (2) Total: 10 marks
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	Handwritten
GROUP/INDIVIDUAL	Individual
LIST OF EXPERIMENTS/TOPICS	**List of Investigatory Projects** 1. To demonstrate that a centripetal force is necessary for moving a body with a uniform speed along a circle, and that the magnitude of this force increases with increase in angular speed. 2. To demonstrate inter-conversion of potential and kinetic energy. 3. To demonstrate conservation of linear momentum. 4. To demonstrate the law of moments. 5. To demonstrate the effect of angle of launch on range of a projectile. 6. To demonstrate that the moment of inertia of a rod changes with the change of position of a pair of equal weights attached to the rod. 7. To study variation of volume of a gas with its pressure at constant temperature using a doctors' syringe. 8. To demonstrate Bernoulli's theorem with simple illustrations 9. To demonstrate free oscillations of different vibrating systems. 10. To demonstrate longitudinal and transverse waves.

GUIDELINES

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

- demonstrate the application of theoretical concepts in real world problems
- apply scientific method of problem solving.

The expectations of the project work are that:

- A well-structured experimental plan that outlines the methodology, variables, and data collection techniques.
- Accurate data collection and analysis using appropriate tools and methods.
- Clear presentation of results, including data visualizations such as graphs, charts, or tables.
- Proper documentation of sources and references.

Scope of the project:
- The project may involve designing experiments, simulations, or theoretical models to explore a specific concept.
- The project may be a solution of existing problems or an innovative application of any scientific principle.

Expected Checklist:
- Research Question: Clearly define the research question or hypothesis.
- Literature Review: Conduct background research and compile relevant information.
- Experimental Plan: Design the experiment, including materials, procedures, and data collection methods.
- Data Collection: Gather data accurately and systematically.
- Data Analysis: Analyze the data using appropriate statistical or graphical methods.
- Results: Present the results clearly, using graphs, charts, or tables as needed.
- Interpretation: Interpret the results in relation to the research question or hypothesis.
- Conclusion: Summarize the findings and suggest areas for further research.
- Documentation: Cite sources and references accurately.

Mode of presentation/submission of the Project:
- A detailed report that includes the research question, literature review, experimental plan, data analysis, results, interpretation, and conclusion. Include proper citations and references.

PROJECT GUIDELINES (2025-2026)

SUBJECT	CHEMISTRY
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	1. Brief & Clear Statement of the Aim – 2 marks 2. Appropriateness of Methodology – 3 marks 3. Innovative design / New idea – 2 marks 4. Oral Presentation Skills – 3 marks Total marks - 10
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	1. Study of the presence of oxalate ions in guava fruit at different stages of ripening. 2. Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.) 3. Study of digestion of starch by salivary amylase and effect of pH and temperature on it. 4. Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc. 5. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom). 6. Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper. 7. Testing the hardness, presence of Iron, Fluoride, Chloride, etc., depending upon the regional variation in drinking water and study of causes of presence of these ions above permissible limit (if any). 8. Investigation of the foaming capacity of different washing soaps and the effect of addition of Sodium Carbonate on it. 9. Study the acidity of different samples of tea leaves. 10. To check the contamination in drinking water by testing sulphide ion. 11. Any other relevant topic.

GUIDELINES

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

- demonstrate proficiency in experimental skills such as observing, recording data and drawing conclusions.
- use creativity in approaching scientific problems and generating innovative ideas for investigation.
- to acquire skills to gather information from various sources and critically evaluate their relevance and reliability
- develop the communication skills to argue logically.

The expectations of the project work are :

- **Originality** - Demonstrating creativity and innovation in selecting a research topic and developing hypotheses or solutions.
- **Quality** - Producing reliable and accurate data through careful experimentation, observation, or analysis.
- **Clarity** - Communicating findings, methodologies, and conclusions effectively through written reports, oral presentations, or visual displays.
- **Critical Thinking** - Demonstrating the ability to analyze data critically, interpret results, and draw logical conclusions.

Scope of the project:

- **Topic Definition** - Clearly defining the research question or problem statement that the project aims to address.
- **Research Plan** - Designing a systematic approach to gather relevant information, conduct experiments, or carry out investigations.
- **Resource Management** - Identifying and allocating necessary resources such as time, materials, equipment, and personnel.
- **Timeline** - Establishing a realistic timeline with milestones to monitor progress and ensure timely completion of the project.
- **Dissemination** - Sharing findings and outcomes with relevant stakeholders through presentations.

Expected Checklist:

- **Topic Definition** - Clearly defining the research question or problem statement that the project aims to address.
- **Research Plan** - Designing a systematic approach to gather relevant information, conduct experiments, or carry out investigations.

- **Data Collection and Analysis -** Collecting data through experiments, surveys, observations, or literature review, and analyzing it to draw meaningful conclusions.
- **Evaluation -** Implementing criteria for evaluating the success of the project in achieving its objectives and addressing the research question.

Mode of presentation/submission of the Project:

- **A detailed well presented written report that includes experimental plan, data analysis, conclusion and proper references.**

PROJECT GUIDELINES (2025-2026)

SUBJECT	PSYCHOLOGY
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	5
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	1. Develop an interview schedule for a psychologist specialising in any one of the branch of Psychology as mentioned in Chapter 1- What is Psychology? 2. Prepare an interview schedule for parents and teachers of a child with learning disability/autism spectrum disorder/ADHD.

GUIDELINES

A.) The objectives of the project work are to enable learners to:

• To develop in learners an appreciation of the nature of psychological knowledge and its application to various aspects of life.

• To enable learners to become perceptive, socially aware and self-reflective.

• To develop students' communication skills by effectively presenting findings and insights from the case profile.

- To develop critical thinking and analytical skills by analyzing the psychological data gathered.

B.) The expectations of the project work are that:

- Students to strictly adhere to the ethical guidelines while gathering and presenting data for the case profile. Subject details should be kept strictly confidential.
- Project submission should be comprehensive (demographic, physical, physiological and psychological data).

C.) Scope of the project:
   Suggested flow chart:

- Choose a title/topic
- Collection of the research material/data
- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

D.) Expected Checklist:

- **The questions for interview (psychologist) may be based on the following:**
  (i) What kind of education is necessary for your particular job?
  (ii) Which college/university would you recommend for the study of this discipline?
  (iii) Are there many jobs available today in your area of work?
  (iv) What would a typical day at work be like for you – or is there no such thing as "typical"?
  (v) What motivated you to enter this line of work?
- **The questions for parent interview to be based on gathering data- demographic, physical and psychological.**

E.) Mode of presentation/submission of the Project:

- **Projects to be handwritten and submitted in a spiral bound file. It should include relevant and appropriate pictures, family tree, reports etc.**
- **It should be the independent work of the student.**

PROJECT GUIDELINES (2025-2026)

SUBJECT	PHYSICAL EDUCATION
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	1. Fitness Test (6 marks) 2. Skill of any one game/sport of choice (7 marks) 3. Yogic Practices (7 Marks) 4. Record File (5 marks) 5. Viva (Health/ Game& Sports/Yoga) (5 Marks) Total 30 Marks
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	1. History of the game/sport. (choose anyone Game/Sport) Athletics, Badminton, Chess, Boxing, Tennis, Gymnastic, Rope Skipping, Yoga 2. Draw a neat diagram of court/field of your specialized game (3. Dimension of court/field and equipment's 4. Fundamental skills and Terminology of the game 5. Latest rules and regulation of the game 6. Famous personalities and tournaments related to your specialized game. 7. Write down the list of national award winners (Dronacharya award, Arjun award of your respective game. 8. Fitness Tests: Pushups and Modified pushups, Shuttle run, standing broad jump/ Long jump, 50-meter sprint, 600-meter walk and run test. 9. Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease- Diabetes, Asthma, Hypertension, Back pain, Obesity.

GUIDELINES

The objectives of the project work are to enable learners to:
● Physical Development
● Mental Development
● Social Development
● Neuro-Muscular Development
● Development of Health
● Learning and understanding different games and sports
● Learn and understand the Motor Abilities like Strength, Speed, Endurance, Coordination and Flexibility
● Control of emotions, Balance Behavior, Development of Leadership and Followership qualities and Team spirit.

- Develop the habbit of practicing yoga asanasand pranayam daily.
- Knowledge about human body and it's functioning and effects of physical activities.
- Learn about Nutrition and importance of balance diet.
- Understand and organize tournaments
- Learning the procedure and application of different physical and physiological test of different ages groups.

Scope of the project:
- It includes many topics which belong to other subjects like science, biology, psychology, and sociology.

PROJECT GUIDELINES (2025-2026)

SUBJECT	ECONOMICS
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	1. Relevance of the topic 3 marks 2. Knowledge Content/Research Work 6 marks 3. Presentation Technique 3 marks 4. Viva-voce 8 marks Total 20 Marks
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	1. Effect on PPC due to various government policies 2. Goods and service Tax Act 3. Demonetisation in India: An Analysis 4. Effect of Price change on a substitute and complementary good (taking prices from real life visiting local markets) 5. Environmental awareness among people in the society. 6. Demand and its determinants 7. Price Determination 8. Market Structure 9. Utility concept: Cardinal and Ordinal approach 10. Any other relevant topic

GUIDELINES

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

• probe deeper into theoretical concepts learnt in class XI

• analyse and evaluate real-world economic scenarios using theoretical constructs and arguments

• demonstrate the learning of economic theory

• follow up aspects of economics in which learners have interest

• develop the communication skills to argue logically

The expectations of the project work are that:

• project should be of 25-30 pages, , preferably hand-written

• it will be an independent, self-directed piece of study

Scope of the project:

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

• Choose a title/topic

• Collection of the research material/data

• Organization of material/data

• Present material/data

- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

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

Mode of presentation/submission of the Project:
At the end of the stipulated term, each learner will present the research work in the Project File to the Internal examiner as his/her own original work.

PROJECT GUIDELINES (2024-2025)

SUBJECT	Mathematics
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	10 **Activity File. (Presentation of content – 2 marks)** **Notebook. (Assignment Work : Accuracy -2 marks)** **Ppt/movie. (Creativity – 2, Originality - 2 , Oral Presentation-2)**
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	**Handwritten** **Digital**
GROUP/INDIVIDUAL	**Individual**
LIST OF EXPERIMENTS/TOPICS	**Activity File Work** Sets: 1. If a set has n number of elements, then the total number of subsets is 2n and also find the number of subsets of a given set 2. For two sets A and B, n (A×B) = pq and the total number of relations from A to B is 2pq, where n(A) = p and n(B) = q. Relations and Functions: 1. Difference between a Relation and a Function. Trigonometric functions 1. The relation between the degree measure and the radian measure of an angle. 2. Graphs of sin x, sin 2x, 2sinx and sin 2 x , using same coordinate axes. 3. Values of sine and cosine functions in second, third and fourth quadrants using their given values in first quadrant. **Power Point / Movie** Explore Geogebra app. Please find attached link to learn the basics of geogebra. https://www.youtube.com/live/wmTtfgTvvDo?feature=share. Create your id in the web browser (Geogebra) and prepare a project on any of the above three units. Present your project in the form of Power point / movie or Geogebra link

GUIDELINES

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

1. **Understanding Relations:** Understanding Sets and the relationship between different elements or objects.
2. **Logical Reasoning:** To provide a foundation for logical reasoning and problem-solving skills.
3. **Classification and Categorization:** To allow for the classification and categorization of objects based on their properties.
4. **Learning trigonometric functions serves several objectives, including:**
5. **Geometry and Measurement:** Trigonometric functions are essential for solving problems related to angles, distances, and shapes in geometry and trigonometry.
6. **Navigation and Surveying:** Trigonometric functions are used in navigation, surveying, and geodesy to calculate distances, angles, and positions on the Earth's surface.
7. **Engineering and Physics:** Trigonometric functions are widely used in engineering and physics to analyze and design mechanical systems, electrical circuits, and waves.

The expectations of the project work are:
1. **Understanding of concepts**
2. **Problem solving ability**
3. **Accuracy.**
4. **Creativity**
5. **Critical Thinking**

Scope of the project:
1. **It helps students explore real world applications or connection of the topics with other disciplines.**
2. **The project addresses the varied interest if Students and allows creativity, independent thinking and collaborative learning.**

Expected Checklist:
1. **Originality.**
2. **Creativity**
3. **Problem solving.**
4. **Computational Skills**

Mode of presentation/submission of the Project:
1. Activity File
2. Notebook
3. PowerPoint Presentation or movie.

PROJECT GUIDELINES (2025-2026)

SUBJECT	Biology
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	1.Clearly defined Aim 2. Knowledge Content/Research Work 3. Presentation Technique 4. Viva-voce Total 5 Marks
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	Examples of investigatory projects in biology for class 11 students: 1. Investigating the effect of different plant hormones on plant growth 2. Investigating the effect of different wavelength of light on rate of photosynthesis in plants 3. Investigating the effects of various organic and inorganic fertilizers on plant growth and development. 4 Studying the impact of different types of pollutants (such as heavy metals, pesticides, etc.) on the germination and growth of seeds. 5. Investigating the role of various factors on the rate of enzyme action (salivary amylase), such as temperature, pH, and substrate concentration. 6. Exploring the effects of electromagnetic radiation (e.g., from mobile phones, Wi-Fi routers) on the growth and development of plants. 7. Investigating the potential antimicrobial properties of various plant extracts against common human pathogens. 8. Investigating the effect of various energy drinks on blood pressure of humans 9. Prepare a spirometer and obtain the spirogram of individuals belonging to different age groups. 10. Study and compare the effect of different iron supplementation methods on hemoglobin levels in individuals with iron deficiency anemia. 11.Prepare human blood smear and identify the different types of WBC's in it. 12. Examining the association between blood lipid profiles (e.g., cholesterol levels) and the risk of developing hematological disorders, such as thrombosis or Coronary Heart Disease 13. Prepare a functional model to show the functioning of either of the two a) human heart b) dialysis 14. Studying the correlation between blood glucose levels and hematological parameters in diabetic patients. 15. Analyzing the hematological changes associated with chronic diseases, such as kidney disease, liver disease, or autoimmune disorders.

	16. Studying the relationship between blood type (ABO and Rh) and susceptibility to certain hematological disorders or diseases. 17. Analyzing the hematological effects of environmental factors, such as air pollution or exposure to heavy metals, in urban populations. 18. studying the impact of various radiation on the development of human fetus. 19. Rear commonly found vegetable pests to study the different stages of their life cycle. Any other topic

GUIDELINES

The objectives of the project work are to enable learners to:
• probe deeper into theoretical concepts learnt in classes XI.
• analyses and evaluate real-world biological issues using theoretical constructs and arguments
• demonstrate the application of theoretical concepts in real world problems
• promote scientific method of problem solving.
• develop the communication skills to argue logically

The expectations of the project work are that:
• learners will complete only ONE project in each academic session
• project should be of 2,500-3,000 words (excluding diagrams & graphs), preferably hand-written
• it will be an independent, self-directed piece of study

Scope of the project:
Project covers various topics in biology such as biotechnology, human physiology, plant physiology, animal and plant tissues in integration with other subjects like chemistry and mathematics.
It also involves formulation of hypothesis and designing experiments to check its validation.

Key guidelines to follow while documenting the investigatory project
1. Index: Maintain index, and neatly organized content with page numbers
2. Title Selection Choose a concise and descriptive title that reflects the purpose of your investigation.
3. Introduction: Provide a clear introduction to the topic, including the background information, significance of the study, and objectives of the project.
4. Review of Literature: Include a brief review of relevant literature and studies related to your topic to show understanding of existing knowledge.
5. Hypothesis- State a clear hypothesis or research question that you aim to investigate through your project.

6. Materials and Methods: Describe the materials (equipment, chemicals, biological specimens) and methods used in your experiment. Include detailed procedures in a step wise manner supported by pictures at each critical step

7. Data Collection and Analysis- Record all data obtained during the experiment systematically. Use appropriate tables, graphs, and charts to present your findings.

8. Results Present the results of your experiment objectively, including any statistical analyses performed.

9 Discussion - Interpret your results and discuss their implications. Compare your findings with existing literature and address any limitations or challenges encountered during the project.

10. Conclusion- Summarize the key findings of your investigation and how they relate to your hypothesis or research question. Give suggestions for further studies that can investigate other aspects not covered by this project

11. Bibliography : Cite all sources of information used in your project, including books, journals, and websites links

12. Acknowledge any individuals or institutions that provided assistance or resources for your project.

It's important to conduct your investigation ethically and ensure that your project is well-documented and scientifically sound.

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

Mode of presentation/submission of the Project:
At the end of the stipulated term, each learner will present the research work in the Project File to the examiner who will judge the project work on parameters given above .

PROJECT GUIDELINES (2025-2026)

SUBJECT	ENGLISH
CLASS	XI-XII
MARKS FOR PROJECT (MARKING SCHEME)	20 MARKS ALS- 5+5 = 10 MARKS PROJECT WORK + VIVA- 10 MARKS
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	(TYPED OR HANDWIRTTEN)
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	a) **Interview Based Research** **Students can choose a topic on which to do their research/ interview** □ **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 has to be done individually.** 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. A viva will be taken on the report.**

GUIDELINES

- **The objectives of the project work are to enable learners to :**
  - Check planning , preparation and presentation along with various language skills through research and writing.
  - Activate their listening skills and create more horizon for the creative skillset.

- **The expectations of the project work are:**
  - To develop understanding of correct pronunciation and intonation.
  - To check the students' grammatical structures and assess their communication skills so as to make the teacher understand their point of view effectively.

- **Scope of the project:**
  - 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

- **Expected Checklist:**
  - 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 reflections.
  - If possible, Photographs and videos that capture the positive learning experiences of the students.
  - List of resources/bibliography.

- **Mode of presentation/submission of the Project:**
  - Each learner will present research work in the project file.
  - The questions shall be asked from the project file of the learner.
  - The practice of Listening and Speaking skills will be done throughout the academic session.
  - Viva of the project file will check the following parameters:
    1. Fluency – Cohesion, Coherence and Speed of Delivery.
    2. Pronunciation – Grammar and Vocabulary.
    3. Interactive Competence – Initiation and relevance to the topic.

PROJECT GUIDELINES (2025-2026)

SUBJECT	BUSINESS STUDIES
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	**1. Relevance of the topic 3 marks** **2. Knowledge Content/Research Work 6 marks** **3. Presentation Technique 3 marks** **4. Viva-voce 8 marks** **Total 20 Marks**
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	HANDWRITTEN
GROUP/INDIVIDUAL	INDIVIDUAL

LIST OF EXPERIMENTS/TOPICS	A. Project One: Field Visit
	    1. Visit to a Handicraft unit.
	    2. Visit to an Industry.
	    3. Visit to a Whole sale market (vegetables, fruits, flowers, grains, garments, etc.)
	    4. Visit to a Departmental store.
	    5. Visit to a Mall.
	B. Project Two: Case Study on a Product
	Students may develop a Case Study on the following lines:
	    (i) Research for change in price of the product. For example, apples in Himachal Pradesh during plucking and non plucking season.
	    (ii) Effect on prices in the absence of effective transport system.
	    (iii) Effect on prices in the absence of suitable warehouse facilities.
	    (iv) Duties performed by the warehouses.
	    (v) Demand and supply situation of the product during harvesting season, prices near the place of origin and away.
	    B. Project Three: Aids to Trade
	    C. Project Four: Import /Export Procedure
	    D. Project Five: A visit to any State Emporium

1

GUIDELINES

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

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

• develop a practical approach by using modern technologies in the field of business and management;

• get an opportunity for exposure to the operational environment in the field of business management and related services;

• inculcate important skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions

• get involved in the process of research work; demonstrate his or her capabilities while working independently and

• make studies an enjoyable experience to cherish.

Scope of the project:

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

- Choose a title/topic
- Collection of the research material/data
- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

Expected Checklist:

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

1. The total length of the project will be of 25 to 30 pages.

2. The project should be handwritten.

3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence-

Cover page should include the title of the Project,

student information, school and year.

List of contents.

Acknowledgements and preface (acknowledging the institution, the news papers read, T.V. channels viewed, places visited and persons who have helped).

Introduction. Topic with suitable heading.

Planning and activities done during the project, if any.

Observations and findings while conducting the project.

News paper clippings to reflect the changes of share prices.

Conclusions (summarised suggestions or findings, future scope of study).

Appendix (if needed).

Mode of presentation/submission of the Project:

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

3

SUBJECT	POLITICAL SC XI
ASSESSMENT PARAMETER	SUBJECT ENRICHMENT
TOPIC	MAKING OF THE INDIAN CONSTITUTION
PROJECT/ACTIVITY	**MAKE A PROJECT ON THE TOPIC COVERING THE FOLLOWING** **Introduction** **Historical Background** **Formation of the Constituent Assembly(** **Key Features of the Constitution** **Adoption of the Constitution** **Influences on the Indian Constitution** **Important Personalities** **Preamble to the Constitution** **Challenges during the Making** **Visuals to include:** • **Timeline of important events (1946–1950).** • **Picture of the first sitting of the Constituent Assembly.** • **Photos of important leaders.** • **Preamble (colored page).** **Conclusion** • Recap the importance of the Constitution. • Emphasize how it continues to guide Indian democracy today.
LEARNING OUTCOME/SKILL ENHANCED	-The students will be able to understand the **meaning, importance, and purpose** of the Constitution in a democratic country like India.
RESOURCES (ONLINE LINKS)	https://ncert.nic.in https://legislative.gov.in/constitution-of-india
MODE OF SUBMISSION	offline
RUBRICS	(i) Content accuracy 2 marks (ii) Presentation 2 marks (iii) Interdisciplinary Integration: 1mark

4

PROJECT GUIDELINES (2025-2026)

SUBJECT	Computer Science
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	10 marks (Project file-7 marks (printout of error free and indented code with correct output & comments included), Viva- 3marks)
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	Typed
GROUP/INDIVIDUAL	Individual
LIST OF EXPERIMENTS/TOPICS	**TOPIC: FLOW OF CONTROL** **(Do Any one from PROJECT 1 and PROJECT2)** **PROJECT 1: WORLD CLOCK** Sudha is CEO of a Multinational company which has offices in California USA, London UK, Sydney Australia, Tokyo Japan. She is facing problem in knowing the time in four offices at any point of time. Write a python program to accept time in India and find out the current time in country choice given by Sudha. OR **PROJECT 2: NUMBER GUESSING GAME** Write a simple number guessing game where the computer generates a random number between 1 and 100, and the user has to guess it. Provide feedback if the guess is too high or too low. Use a while loop to repeatedly prompt the user until they guess correctly. **(Do Any one from PROJECT3 and PROJECT4)** **PROJECT 3: Bill Generator Application** Write a program to input the price of items, number of items and calculate the discount and total amount to be paid by the user according to the following criteria **Total price Discount%** <500 10% 500-1000 12% >1000 15% OR **PROJECT 4: Student Reportcard Generator Application** Write a program to input the marks scored by the students in 5 subjects. Calculate the total marks and grade according to the following criteria **Total marks Grade** 75 - 100 A 50 - 74 B 33 - 49 C 0-32 E

GUIDELINES

The objectives of the project work are to enable learners to:
1. **To Familiarize with Python Basics:** Enable learners to understand fundamental concepts in Python programming such as data types, operators, control structures, and loops.
2. **Practical Application:** Provide learners with hands-on experience in solving real-world problems using Python programming language.
3. **Skill Development:** Foster critical thinking and problem-solving skills through programming exercises and challenges.
4. **Introduction to Project Management:** Introduce learners to the project development process, including requirements gathering, planning, implementation, and presentation.

The expectations of the project work are that:
1. **Completion of Assigned Tasks:** Students are expected to complete all assigned tasks within the given timeframe.
2. **Understanding of Concepts:** Demonstrate understanding of Python programming concepts covered in class, including input/output, control flow, loops, and basic arithmetic operations.
3. **Quality of Code:** Write clean, well-structured code with appropriate comments and documentation where necessary.
4. **Problem-Solving Skills:** Apply logical thinking and problem-solving skills to tackle different programming challenges.
5. **Presentation:** Prepare to present their solutions and findings effectively, showcasing their understanding of the concepts and their ability to communicate technical information.

Scope of the project:
1. **Python Basics:** The project covers fundamental Python programming concepts, including input/output operations, data types, operators, and control structures.
2. **Problem Solving:** Students will solve a variety of problems ranging from simple arithmetic calculations to more complex tasks involving loops, conditionals, and functions.
3. **Hands-on Practice:** The project provides ample opportunities for hands-on practice through coding exercises and challenges.
4. **Concept Reinforcement:** Reinforce concepts learned in class through practical application and problem-solving tasks.
5. **Introduction to Project Management:** Introduce students to the basics of project management, including planning, execution, and presentation of their solutions.

Expected Checklist:
1. Cover Page
2. Index
3. Program code and output
4. Bibliography

Mode of presentation/submission of the Project:
At the end of the stipulated term, each learner will present the Project File to the examiner who will judge the project work on parameters given above.

ASSIGNMENT
PYTHON Programs based on if statement

1. To input two numbers and check which number is greater
2. To input a number and check whether the number is positive, negative or zero.
3. To input age from the user and check whether user is eligible for voting or not.
4. To input a number and check whether number is even or odd
5. To input two numbers and an operator (+, -, *, /) from the user and calculate the result
6. To input three numbers and display the largest number.
7. To input three numbers and print them in ascending order. [Use the concept a,b=b,a]
8. To print the roots of a quadratic equations
9. To input a character and check whether it is uppercase, lowercase, digit or special character.
10. Write a menu-driven program to input two numbers and display the result depending upon the choice entered by user.
    1. DISPLAY QUOTIENT WITHOUT DECIMAL
    2. DISPLAY REMAINDER
    3. DISPLAY QUOTIENT WITH DECIMAL
    4. EXIT
11. Write a menu-driven program to calculate the area of different shapes i.e. rectangle, circle, square, triangle etc.
    1. AREA OF CIRCLE
    2. AREA OF RECTANGLE
    3. AREA OF TRIANGLE
    4. AREA OF SQUARE
    5. EXIT
12. WAP to input the sale of a salesman in 4 quarteres namely q1, q2, q3, q4 calculate the total sale and assign bonus as follows

totalsale > 40000	bonus is 10% of sale
totalsale > 30000	bonus is 5%
totalsale > 20000	bonus is 2%
totalsale < =20000	bonus is 0%

PROJECT GUIDELINES (2025-2026)

SUBJECT	ARTIFICIAL INTELLIGENCE
CLASS	XI
MARKS FOR PROJECT (MARKING SCHEME)	10 MARKS PROJECT- 5 MARKS ASSIGNMENT- 5 MARKS
MODE OF SUBMISSION (TYPED/HANDWRITTEN)	PRINTOUT FOR ASSIGNMENT PRINTOUT/ HANDWRITTEN FOR PROJECT
GROUP/INDIVIDUAL	INDIVIDUAL
LIST OF EXPERIMENTS/TOPICS	1) Career Exploration Project: "My AI Career Roadmap" Case Studies on AI Applications in Healthcare, Finance, Retail, Education, and Robotics Research on Popular AI Tools and Programming Languages Self-Assessment: Identifying My Technical and Soft Skills for AI 2) ASSIGNMENT Perform the assignment tasks using Python IDLE or Google Colab.

1. PROJECT GUIDELINES

➢ **The objectives of the project work are to enable learners to:**
- Understand the global scope and demand for AI.
- Explore different AI job roles and industries.
- Recognize essential technical and soft skills needed for an AI career.
- Plan their academic and professional journey in AI.
- Develop self-learning, research, and presentation skills

➢ **The expectations of the project work are that:**
- Each student will select one AI field (Healthcare, Education, Robotics, Finance, Retail, etc.) and create a career roadmap.
- Use the chapter questions to guide your research.
- Include current global trends, job roles, required skills, and recommended subjects/courses.
- Work should be original and neatly presented (handwritten/digital as per student's choice
- Students can relate their personal interests with suitable AI career options.
- They can list technical and soft skills they need to develop.
- Students show awareness of AI tools, languages, and continuous learning platforms.
- They prepare a roadmap showing subjects to choose, extra courses, and future steps

➢ **Scope of the project:**
- Research-based learning with real-world AI career examples.
- Aligning academic subjects with professional goals.
- Enhancing students' understanding of AI's role in various industries.
- Preparation for future academic subject choices and certifications

➢ **Expected Checklist:**
  o Title of the Project
  o Selected AI Field (e.g., AI in Healthcare)
  o Write-up covering:
    ▪ Global demand of AI
    ▪ 10 job roles in AI
    ▪ Technical and soft skills required

- Role of AI in selected industry
- Popular AI tools and languages
- Importance of continuous learning
  - Career Roadmap (Subjects to choose in XI & XII + Extra Courses/Certifications)
  - Neat Presentation with headings, bullet points, and visuals (charts/tables if possible)
- Bibliography (Sources referred)

FORMAT OF SUBMISSION FOR THE PROJECT

CLASS XI AI – HOLIDAY HOMEWORK PROJECT

Unlocking Your Future in AI
Title: My AI Career Roadmap

1. **Student Details**
- Name:
- Class & Section:
- Roll No.:
- Selected AI Field: (e.g., AI in Healthcare, AI in Education, AI-driven Robotics)

2. **Global Demand of AI**
(Write a short note in about 6-8 lines explaining the global scope and demand for AI.)

3. **Common Job Roles in AI**
(List 10 common job roles related to AI. Use bullet points.)

4. **Technical Skills Required for AI Career**
(Mention at least 5-6 key technical skills and explain why they are important.)

5**. Role of AI Professionals in My Selected Industry**
(Write 8-10 lines describing how AI is used in your chosen field — healthcare, education, robotics, finance, or retail.)

6. **Popular AI Tools and Programming Languages**
(List at least 5 AI tools/languages used by professionals.)

7. **Soft Skills Needed for Success in AI**
(List and explain at least 4 soft skills that help AI professionals succeed.)

8. **Importance of Continuous Learning in AI**
(Write 5-6 lines on why continuous learning is crucial and how professionals stay updated.)

9. **My Career Roadmap**
- Subjects I will choose in Class XI & XII:
  (e.g., Mathematics, Computer Science, Physics, Biology, etc.)
- Additional Courses or Certifications I plan to do:
  (e.g., Python Programming, Machine Learning, AI Basics, Data Analysis, Robotics, etc.)
- Extracurricular activities or clubs I will join:
  (e.g., Coding Club, Robotics Club, AI Workshops)
- Future Goals:
  (e.g., Pursue B.Tech in AI, Specialize in Healthcare AI, Work as an AI Data Scientist)

10. Visual Presentation (Optional but Recommended)
(Add charts, tables, diagrams, or career pathway visuals.)

11. Bibliography (Sources Referred)
(List the websites, books, or videos you used for your project.)

Note: Neatness, original write-up, and creative presentation will earn extra credit!

Submitted by:
Mode of submission: Handwritten File / PDF

2. ASSIGNMENT –BASED ON PYTHON PROGRAMMING LANGUAGE

Complete the following python program and submit the printout of code with output.

1) Write a Python program to input sales done in 4 Qtrs and calculate total sales.
2) Write a Python program to input temperature in Celsius and convert it into Fahrenheit.
3) Write a Python program to input distance travelled and time taken. Calculate the speed.
4) Write Python code to swap two variables without using third variable
5) To input age from the user and check whether user is eligible for voting or not
6) Input marks in 5 subjects and calculate total, average and grade according to the CBSE exam policy.
7) To input a character and check whether it is uppercase, lowercase, digit or special character.
8) To input name, class, section and marks of a student in 5 subjects, find the total, percentage and grade.