SUMMER HOLIDAY HOMEWORK

GRADE – XI

GENERAL INSTRUCTIONS

- **Compulsory Submission**: Holiday homework is mandatory for all students.
- **Submission Deadline**: Submit your homework on or before 1st July 2026.
- The holiday homework will be considered as part of the internal assessment. Parents are kindly requested to ensure that their child completes and submits the assignment on time.

PART-A [INTERNSHIP]

A 15–20 day internship must be completed by the student in a field aligned with their intended future career. An experience letter from the employer must be submitted upon completion of the internship.

PART-B [SUBJECT SPECIFIC]

ENGLISH

Interview-Based research:
Example:

1. 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.
2. 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.
3. 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

PHYSICS

Practical file work:

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.
3. To determine volume of an irregular lamina using screw gauge.
4. To determine radius of curvature of a given spherical surface by a spherometer.
5. To find the weight of a given body using parallelogram law of vectors.
6. Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum.
7. To find the force constant of a helical spring by plotting a graph between load and extension.
8. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
9. To study the relation between frequency and length of a given wire under constant tension using sonometer.

Activities:

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
2. To determine mass of a given body using a metre scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars

4. To observe and explain the effect of heating on a bi-metallic strip.
5. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.
6. To study the effect of detergent on surface tension of water by observing capillary rise.

CHEMISTRY

Students are required to complete the following tasks during the holidays:

1. **Practical Work**:
   You will have to write all the practicals in your practical files. The PDFs of the practicals will be shared with you for reference. Ensure that your work is neat, complete, and submitted as per the guidelines.
2. **Investigatory Project**:
   You will have to prepare an investigatory project in typed format. A sample project will also be shared with you for reference. Follow the format carefully and maintain proper presentation and originality in your work.

BIOLOGY

Practical File work:

1. Study of Plant Growth under Different Conditions Compare growth in sunlight vs shade. Variables: light, water, soil.
2. Effect of pH on Enzyme Activity (Salivary Amylase) Test starch breakdown at different pH levels using iodine test.
3. Study of Osmosis Using Potato Osmometer Demonstrate endosmosis and exosmosis by observing size/weight changes.
4. Comparative Study of Stomatal Density in Different Plants Compare aquatic and terrestrial plants using leaf peel method.
5. Study of Transpiration Rate Using Cobalt Chloride Paper Measure water loss under different environmental conditions.
6. Test for Adulterants in Food Samples Detect starch, urea, detergents etc. from household samples.

MATHEMATICS

Project Work

1. Choose a project topic aligned with your syllabus and interests.
2. Clearly state what you intend to study or prove.
3. Explanation of the mathematical concepts involved.
4. Steps or procedures followed to carry out the project.
5. If applicable, collect data and analyze using mathematical methods.
6. Summarize findings or results.
7. Neat, organized report including diagrams, graphs, and references.

Suggestive Topics for Math Projects

1. **Sets and Functions:** Exploring different types of functions, domain and range, types of relations.
2. **Algebra:** Polynomials, linear and quadratic equations, sequences and series.
3. **Coordinate Geometry:** Distance formula, section formula, area of triangles, straight lines.
4. **Trigonometry:** Basic identities, heights and distances.
5. **Calculus (Introduction):** Limits and derivatives (introductory level).
6. **Statistics and Probability:** Measures of central tendency (mean, median, mode), probability basics.

Evaluation Criteria

1. Understanding of concepts
2. Application/Known Examples
3. Presentation and Neatness
4. Originality and Creativity
5. Viva voce

ACCOUNTANCY

Write the answers of the following questions in your notebooks.
Q1. Explain in brief the role of accounting in business.
Q2. Explain in brief the following accounting terms:

1. Business Transactions
2. Revenue
3. Accounts
4. Goods
5. Insolvency
6. Bad Debts

Q3. Distinguish between:

1. Capital Expenditure and Revenue Expenditure
2. Profit and Gain
3. Current Liabilities and Non-Current Liabilities
4. Expenses and Losses

Q4. Explain the following Accounting Principles with the help of suitable examples:

1. Money Measurement Principle
2. Business Entity Principle
3. Prudence Principle
4. Consistency Principle
5. Duality Principle

Q5. Differentiate between 'Cash Basis of Accounting' and 'Accrual Basis of Accounting'.

BUSINESS STUDIES

Project Work [any one]:

I. **Project-1: Field Visit -** The students should select a place of field visit from the following and prepare the report

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.

II. Project-2: Case Study on a Product - Students may develop a Case Study on any one of the following topic:

1. Apples from Himachal Pradesh, Kashmir.
2. Oranges from Nagpur
3. Mangoes from Ratnagiri etc.
4. Strawberries from Panchgani
5. Aloe vera from Rajasthan
6. Walnuts/almonds from Kashmir
7. Jackfruit from South

8. Guavas from Allahabad

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.

III. Project-3: Aids to Trade

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

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

IV. Project-4: Import /Export Procedure

The students should identify a product of their city/country which is imported /exported. They are required to find the details of the actual import/export procedure. They may take help from the Chambers of Commerce, Banker, existing Importers/Exporters, etc. They should find details of the procedure and link it with their Text knowledge. The specimens of documents collected should be pasted in the Project file with brief description of each. They may also visit railway godowns/dockyards/ transport agencies and may collect pictures of the same.

Guidelines for Presentation and submission of project report:
Each student will prepare and submit his/her project report. Following essentials are required to be fulfilled for its preparation and submission.
1. The total project will be in a file format, consisting of the recordings of the value of shares and the graphs.
2. The project will be handwritten.
3. The project will be presented in a neat folder.
4. The project report will be developed in the following sequence- Cover page should project the title, student information, school and year.

- List of contents.
- Acknowledgements and preface (acknowledging the institution, the news papers read, T.V. channels viewed, places visited and persons who have helped).
- Introduction. Topic with suitable heading.
- Planning and activities done during the project, if any.
- Observations and findings while conducting the project.
- Newspaper clippings to reflect the changes of share prices.
- Conclusions (summarised suggestions or findings, future scope of study).
- Appendix (if needed).
- Teachers report.

The project work will be assessed on the following parameters:

1. Initiative, cooperativeness and participation
2. Creativity in presentation
3. Content, observation and research work
4. Analysis of situations
5. Viva Voce

ECONOMICS

Project Work

The students have to select a topic such as demand-supply analysis, opportunity cost, or price ceiling, and prepare a detailed report with data collection, analysis, and conclusions. The project must be original and presented with clarity using charts, graphs, and case studies.

Project Format

1. Cover Page
2. Acknowledgement
3. Index
4. Introduction
5. Data Collection / Survey
6. Graphs / Charts
7. Analysis
8. Conclusion
9. Bibliography

Suggested Project Topics for Class 11 Economics

1. Effect on PPC due to government policies
2. Opportunity Cost as an Economic Tool (real-life examples)
3. Effect of Price Change on Substitute Goods (local market study)
4. Effect of Price Change on Complementary Goods (real-life data collection)
5. Equilibrium Prices in Local Market (impact of demand-supply changes)
6. Solar Energy vs. Conventional Energy – Cost Analysis
7. Bumper Production: Boon or Bane for Farmers
8. Invisible Hand (Adam Smith's concept in real world)
9. Price Ceiling and Price Floor – Local Market Examples
10. Evaluation of a newspaper article using economic principles
11. Impact of Festivals on Demand and Supply (local market survey)
12. Role of Small Businesses in Local Economy

HISTORY

Project work: Topics as per CBSE Guidelines (Choose One):

1. Industrialization (16th–18th centuries)
2. Crusades
3. Mesopotamian Civilization
4. Greek Philosophy & City-States
5. Roman Civilization
6. Renaissance (art, society, ideas)
7. Development in South/Central America
8. Schools of Thought (Realism, Humanism, Romanticism)
9. Genghis Khan
10. History of Slavery
11. Aborigines (America/Australia)
12. Modernization in China/Japan/Korea

Project Structure

1. Title Page
2. Introduction
3. Need for Study
4. Background / Timeline
5. Main Content (maps, sources, visuals)
6. Analysis
7. Conclusion
8. Bibliography

POLITICAL SCIENCE

Project Work: Topics as per CBSE Guidelines (Choose One):

1. Making of the Indian Constitution
2. Elections in India
3. Working of the Judiciary
4. Social Justice and Ethics in Politics
5. Human Rights Act in India
6. Political Influence on Law-making

Project Structure

1. Title Page
2. Introduction
3. Need for Study
4. Key Concepts / Background
5. Main Content (examples, case studies, news)
6. Analysis
7. Conclusion
8. Bibliography

GEOGRAPHY

Students must prepare **one project file (15–20 pages handwritten)** on **any one topic**.

Suggested Topics

1. Weather and Climate Study of Your City
2. Land Use Pattern in Your Local Area
3. Soil Types and Their Importance
4. Natural Vegetation in India
5. Water Resources and Their Conservation
6. Human Adaptation to Environment
7. Environmental Pollution in Urban Areas
8. Impact of Urbanization on Environment

Project Format

1. Cover Page
2. Acknowledgement
3. Index
4. Introduction
5. Objectives
6. Data Collection
7. Maps / Diagrams / Pictures
8. Analysis

9. Conclusion
10. Bibliography

PHYSICAL EDUCATION

Prepare a labelled diagram of any one IOA recognized sport/game. Along with the diagram, write:

1. A very short introduction of the game
2. Equipment used
3. Basic rules of the game

Instructions:

1. Do the work neatly in chart only
2. Use proper headings and diagrams
3. Paste a relevant picture of the game
4. Also prepare the ground/court diagram on chart paper

PHYSICAL ACTIVITY TRAINER

PART 1: PRACTICAL ACTIVITIES (ANY TWO)

1. Child Development & Physical Activity Planning: Prepare a weekly physical activity plan for children (age 6–10).
   Include:

- Warm-up, main activity, cool-down
- Yoga session (basic asanas)
  Create:
- Flowchart of Planning Cycle (Macro–Meso–Micro)
- Perform 2 activities practically and attach photos.

2. Health Triangle Project: Prepare a chart/model on Health Triangle:

- Physical Health
- Mental Health
- Social Health

Write a case study on one child's fitness improvement.

3. Props & Equipment Study- Make a list of sports equipment used in: Football / Basketball / Volleyball

Prepare: Poster on Importance of Equipment
Conduct: Playground inspection and write report

4. Hygiene & First Aid Practical

Prepare:

- Poster on First Aid Principles
- Flowchart of CPR Steps

Demonstrate:
First aid for: Sprain, Cuts, Heat exhaustion, Maintain a First Aid Kit checklist

PSYCHOLOGY

Psychological Case Study of a Movie Character

1. Students will select any one movie and analyze a main character using psychological concepts.

- Give a brief profile of the character
- Do a behavioral and personality analysis
- Identify emotions, thinking patterns, and possible mental health issues (if any)
- Support answers with examples from the movie

2. Conduct a small survey/interview (5–10 people) related to the character and present findings using charts or graphs

3. Do a 3–5-day observation (school, NGO, clinic, or surroundings) and write a short report and connect observations with the character
4. Compare movie behavior with real-life observations and add personal learning
5. Neat file with headings and examples and include pictures/diagrams

INFORMATION PRACTICES

Practical file work:

1. Write a program to input a welcome message and print it.
2. Program to obtain three numbers and print their sum.
3. Program to obtain length and breadth of a rectangle and calculate its area.
4. Write a program to input a number and print its cube.
5. Write a program to input a value in kilometers and convert it into miles 1 km is equals to (06.21371 miles)
6. write a program to enter a small poem or poem verse and print it.
7. Write a program to input to numbers and swap them.
8. Program to test the divisibility of a number with another number. (Q no 1 to 8 are on pg. no 70 to 72)
9. Program to print table of a number, say 5. (Pg no 162)
10. Program to print some of natural numbers between 1 to 7 .print the sum progressively, i.e., after adding each natural number, print sum so far. (Pg no 163)
11. Program to print some of natural numbers between 1 to 7. (Pg no 163)
12. Write a program to create phone dictionary for all your friends and print each ki value pair in separate lines. (Pg no 232)
13. Write a program to create dictionary m which stores the marks of the students of class with roll numbers as the keys and marks as the values get the number of students as input. (Pg no 234)
14. Given and array as ([2,0,3], [1,3,2]) write a program to print each element along with its double value. (Pg no 276)

SQL -Based assignment

15. Write SQL commands to check if a database by the name new DB exist on my SQL. If not then create a new database by this name. (Pg no 332)
16. Write a school command to create student table with the student id, class Section gender name, DOB and marks as attributes where the student id is the primary key. (Pg no 340)
17. Create table employee with the structure (TOC mentioned on page no 340)
18. Create table job with structure (TOC mentioned on page no 340)
19. Write a SQL command to create a table new table old which has exactly the same structure as the student table created in a rear example show the table structure of newly created table (pg. no 342)
20. Display distinct species of pets from table pet (pg. no348)
21. Display species of all pets from table pet (pg. no. 349)
22. Given a table student as shown in (pg. no 351)
23. Write a query to display the name, age and aggregate marks of students whose age is greater than or equal to 16 from tables student (pg. no 353)
24. Write a query to display all details from pet table for species cat/dog having gender (sex) as male (‘m’). (Pg no 355)
25. Write a query to display name and aggregate marks of those students who don't have their aggregate marks and the range of 382 -425(pg. no 355).
26. Write a query to display all details of pets of species bird snake or Hamster from the table pet (pg. no357)
27. Write a SQL command to add default commission fields value as 1000 and table sales (pg. no.363)

28. Modify column job of table employee to have new width of 30 characters (pg. no 263).