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SUMMER HOLIDAY HOMEWORK

GRADE – XII

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

Project File:

Students listen to podcasts/ interviews/radio or TV documentary on a topic and prepare a report countering or agreeing with the speakers. Write 800 - 1000 words report and submit.

PHYSICS

Practical File Work:

1. To determine resistivity of two wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.
3. To verify the laws of combination (series) of resistances using a metre bridge.
4. To verify the laws of combination (parallel) of resistances using a metre bridge.
5. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit
6. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
7. To find the focal length of a concave lens, using a convex lens.
8. To determine angle of minimum deviation for a given prism by plotting a graph.
9. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.
10. To find the refractive index of a liquid using convex lens and plane mirror.

Activities:

1. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
2. To assemble the components of a given electrical circuit.
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.
4. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.
5. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
6. To study the nature and size of the image formed by a (i) convex lens on a screen by using a candle and a screen (for different distances of the candle from the lens)

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

Investigatory Project Work:

Guidelines:

1. Select your topic under a sub – theme which completely maps with the sub–theme.
2. Source information on your project.
3. Work plan.
4. Make and test your hypothesis - design experiments to test your hypothesis.
5. Recording your data and observations.
6. Consult your guide (teacher / parent/ research scholar).
7. Calculations to draw conclusions.
8. Summarize results and derive conclusions.
9. Take photographs.
10. Define utility and further scope of Project.
11. Cost feasibility.

Suggestive Topics for Investigatory Project:

1. Malaria
2. Development of Foetus
3. Medicinal Plants and their uses
4. Cancer

MATHEMATICS

Write the below listed activities in Activity file:

1. To demonstrate a function which is one-one but not onto
2. To find the limits of a function and check the continuity of function
3. To understand the concept of a local maxima and minima at point of inflection
4. To understand the concept of decreasing and increasing function
5. To verify that angle in the semicircle is a right-angle using vector method

ACCOUNTANCY

Students will have to prepare accountancy project file. The guidelines for the preparation are as under: Accountancy project is based on financial statement analysis of a company. Cover any two of the following aspects:

1. Comparative and Common Size Financial Statements
2. Accounting Ratios
3. Cash Flow Statement

4. Segment Report

Title: Financial Statement Analysis of [Company Name.....]

Table of Contents:

1. Introduction
2. Company Overview
3. (a)Comparative Financial Statements
 - Balance Sheet
 - Income Statement
- (b) Common Size Financial Statements
 - Balance Sheet
 - Income Statement
4. Accounting Ratios
 - Liquidity Ratios
 - Profitability Ratios
 - Efficiency Ratios
 - Solvency Ratios
5. Analysis of company's Cash Flow Statement
6. Conclusion
7. References

Guidelines for Completing the Project:

1. Data Collection: Obtain the company's financial statements (balance sheet and income statement) from its annual reports, which can usually be found on its website or through financial databases.
2. (a) Comparative Analysis: Use Excel or similar software to create comparative statements, showing each year side by side for easy comparison.
- 2.(b) Common Size Analysis: Convert each item on the financial statements into a percentage of a base figure (total assets for the balance sheet, total revenue for the income statement).
3. Ratio Calculations: Calculate the ratios using the financial statement data. Ensure accuracy in your calculations.
4. Cash Flow Statement: Prepare two years Cash Flow Statement of company selected for the project and comment on operating, investing and financing activities with the help of graphical presentations
5. Analysis and Interpretation: Focus on analyzing the trends and ratios. Explain what they mean for the company's financial health and performance.
6. Visuals: Use charts and graphs to visually represent the data and trends. This makes your project more engaging and easier to understand.
7. Documentation: Ensure your project is well-documented, with clear explanations and interpretations for each section.
8. Proofreading: Review your project for any errors or omissions before submission.

BUSINESS STUDIES

Project Work [Any One]:

I. Project One: Elements of Business Environment

The students are required to prepare a project on changes witnessed over the last few years on mode of packaging and its economic impact.

II. Project Two: Principles of Management

The students are required to visit any one of the following: 1. A departmental store. 2. An Industrial unit. 3. A fast food outlet. 4. Any other organisation approved by the teacher. They are required to observe the application of the general Principles of management advocated by Fayol.

III. Project Three: Stock Exchange

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

IV. Project Four: Marketing

Students are required to make a project on the identified product/service of their choice, keeping in the view the following:

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

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

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence-
Cover page should include the title of the Project, student information, school and year.
 - List of contents. Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
 - Introduction. Topic with suitable heading.
 - Planning and activities done during the project, if any.
 - Observations and findings of the visit. Conclusions (summarized suggestions or findings, future scope of study).
 - Photographs (if any).
 - Appendix Teacher's observation.

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 [Any One]:

Suggestive list of project topics:

1. Micro and Small Scale Industries
2. Contemporary Employment situation in India
3. Goods and Services Tax Act and its Impact on GDP
4. Human Development Index
5. Self-help group
6. Monetary Policy Committee and its functions
7. Government Budget & its Components
8. Exchange Rate determination – Methods and Techniques
9. Livestock – Backbone of Rural India
10. Sarva Shiksha Abhiyan – Cost Ratio Benefits
11. Minimum Support Prices
12. Waste Management in India – Need of the hour
13. Digital India- Step towards the future
14. Vertical Farming – An alternate way
15. Make in India – The way ahead
16. Rise of Concrete Jungle- Trend Analysis
17. *Aatmanirbhar* Bharat
18. Sri Lanka's Economic Crisis
19. Environmental Crisis
20. New Education Policy (NEP) 2020: A Promise for a New Education System
21. Amrit Kaal: Empowered and Inclusive Economy
22. Any other newspaper article and its evaluation on basis of economic principles
23. Food Supply Channel in India
24. Disinvestment policy of the government
25. Health Expenditure (of any state)
26. Inclusive Growth Strategy
27. Trends in Credit availability in India
28. Role of RBI in Control of Credit
29. Role of RBI in Control of Credit
30. Trends in budgetary condition of India
31. Currency War – reasons and repercussions
32. Alternate fuel – types and importance
33. Golden Quadrilateral- Cost ratio benefit
34. Relation between Stock Price Index and Economic Health of a Nation
35. Minimum Wage Rate – Approach and Application
36. Rain Water Harvesting – A solution to water crisis
37. Silk Route- Revival of the past
38. Bumper Production- Boon or Bane for the farmer
39. Organic Farming – Back to the Nature
40. e-Rupee (e- ₹)
41. Sustainable Development Goals (SDG's)
42. Comparative Study of Economies (Maximum three economies)
43. G-20: Inclusive and Action Oriented
44. Cashless Economy
45. **Any other topic**

The project work will be assessed on the following parameters:

- Relevance of the topic
- Knowledge Content/Research Work
- Presentation Technique
- Viva Voce

Project format:

1. Title Page
2. Introduction & Objectives
3. Need for Study
4. Hypothesis (if any)
5. Main Content (maps, visuals, sources)
6. Organization of Information
7. Analysis
8. Conclusion
9. Bibliography

HISTORY

Project Work:

Suggestive list of project topics (Any One):

1. The Indus Valley Civilization – Archaeological Excavations and New Perspectives
2. The History and Legacy of the Mauryan Empire
3. Mahabharata – The Great Epic of India
4. The History and Culture of the Vedic Period
5. Buddha Charita
6. A Comprehensive History of Jainism
7. The Bhakti Movement – Interpretations and Commentaries
8. Mystical Dimensions of Sufism
9. Global Legacy of Gandhian Ideas
10. Architectural Culture of the Vijayanagar Empire
11. Life of Women in Mughal Rural Society
12. Comparative Study of British Land Revenue Systems
13. Revolt of 1857 – Causes, Leadership, and Vision
14. Philosophy of Guru Nanak Dev
15. Vision of Kabir
16. Insight into the Indian Constitution
17. Comparative Study of Stupas and Pillar Edicts
18. Comparative Study of Mughal and Vijayanagar Architecture

Project format:

1. Title Page
2. Introduction & Objectives
3. Need for Study
4. Hypothesis (if any)
5. Main Content (maps, visuals, sources)
6. Organization of Information
7. Analysis
8. Conclusion
9. Bibliography

POLITICAL SCIENCE

Project Work:

Suggestive list of project topics (Any One):

1. Non-Aligned Movement (NAM): 1961 to present
2. Division of Germany – Berlin Wall: Construction and Dismantling
3. Central Asian Republics (CIS)
4. Disintegration of USSR with focus on Gorbachev
5. Arab Spring – Causes and Consequences
6. India's Bilateral Relations – Choose one:

- India–Russia
 - India–China
 - India–Pakistan
 - India–Bangladesh
7. ASEAN
 8. European Union and BREXIT
 9. BRICS
 10. SAARC
 11. India’s Nuclear Policy
 12. United Nations – India’s Role and Candidature in Security Council
 13. UN Agencies – Focus on any one or more: UNICEF, UNESCO, WHO
 14. COVID-19: Global Impact, Cooperation & Controversies (include newspaper clippings)
 15. Partition of India – Theories, Impact, and Legacy
 16. NITI Aayog vs. Planning Commission – A Comparative Study
 17. Elections 2019 – Rise of BJP and Fall of Congress (1989–2019)
 18. Emergency in India (1975–77) – Causes and Consequences
 19. NDA III and IV – Social & Economic Welfare Programmes

Project Format:

1. Title Page
2. Introduction & Objectives
3. Need for Study
4. Research Questions (if any)
5. Main Content (timeline, case studies, visuals)
6. Analysis
7. Conclusion
8. Bibliography
9. Assessment (as guided)

GEOGRAPHY

Practical File Work:

A practical file must be prepared by students covering all the topics prescribed in the practical syllabus. The file should be completely handwritten with a cover page, index page and acknowledgment. All statistical diagrams and maps should be drawn neatly with appropriate headings, scale, index etc. Data to draw statistical diagrams can be taken from the NCERT textbook or Census. The topics are given for reference:

CH.1-Data its source and compilation

- What is Data, Sources of data: Primary, Secondary and Unpublished sources.
- Tabulation and Classification of Data
- Grouping of Data
- Frequency Polygon

CH.2-Data Processing

- Tabulating and processing of data
- Measures of Central Tendency: Mean, Median and Mode
- Comparison of Mean, Median and Mode

CH.3- Graphical Representation of data

- Representation of data- General rules for drawing diagrams, graphs and maps, construction of line graphs, polygraphs, simple bar diagrams, line and bar diagram, Multiple bar, Compound bar, Pie diagram, Flowchart
- Thematic maps; Construction of Dot Map; Choropleth Map and Isopleth map

CH.4- Spatial Information Technology

Introduction to GIS; Advantages of GIS, Components of GIS, Spatial data formats, Sequence of GIS activities; Spatial data input, Entering attribute data, Data Linkages and matching, Spatial analysis: Overlay Analysis Operation and Buffer Operation

PHYSICAL EDUCATION

Practical File Work:

Practical–1: Fitness Test Administration (SAI Khelo India Test)

Practical–2: Procedure, Benefits & Contraindications of any two Asanas for each lifestyle disease

Practical–3: Any one IOA recognized Sport/Game – include labelled diagrams of field & equipment, along with rules, terminologies, and skills

PHYSICAL ACTIVITY TRAINER

Practical File work:

1. **Physical Education Career Study**- Research & write about: Roles (Coach, Trainer, Manager, PE teacher.)

2. **Assessment & Evaluation Project**

Prepare:

- Checklist for student fitness assessment
- Rubrics for evaluation

Conduct: Assessment of 5 students

Compare: Qualitative vs Quantitative assessment

3. **Emergency Management Practical**

Prepare: Emergency Response Plan

Demonstrate: First Aid (DRABC principle)

Make: Poster on emergency response

4. **Health & Hygiene Audit**

Inspect: Playground / Sports area

Prepare report on: Hygiene conditions, Safety measures and Suggest improvements

5. **Sports Event Organization**

Organize: Small tournament (Football/Kho-Kho etc.)

Include: Planning, Execution, Evaluation

PSYCHOLOGY

Case Study:

1. Topic: Psychological Case Profile based on Real-Life Issues

2. Description: Students will prepare a case profile based on any one of the following psychological topics:

- ADHD
- Self-Esteem
- Personality
- Procrastination
- Stress Management
- Peer Pressure
- Social Facilitation
- Anxiety

3. Project Guidelines: Select one topic and create a case profile (real or hypothetical)

4. Include:

- Introduction of the case (background details)
- Symptoms/behaviors observed
- Psychological explanation (theories/concepts)
- Impact on daily life
- Coping strategies or solutions

5. Practical Work: Conduct a survey/interview (5–10 people) related to the chosen topic and present results using graphs/charts

6. Internship Component: Do a short observation (3–5 days) in school/NGO/home environment

Note real-life examples related to the chosen topic

7. Conclusion: Link case study with real-life observation and add personal learning

8. Format: Well-organized file with headings and use examples, diagrams, and neat presentation