

HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Hindustani Music

1. How many Gharanas are there in Hindustani classical music (Vocal).
2. Write a brief introduction on various Gharanas.
3. Also mention the characteristics & special features of those Gharanas.
4. Who are the famous exponents/musicians of various Gharanas (also paste their pictures in notebook).

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Physical Education

1. Fitness Test Administration (SAI Khelo India Fitness Test)
2. Anyone game of your choice recognized by IOA. Labelled diagram of Field & Equipment. Also, mention its Rules, Terminologies & Skills.

NOTE : HOMEWORK SHOULD DONE IN PHE FILE DESIGNATED FOR THAT SUBJECT BY CBSE

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Mathematics

1. To draw the graphs of \sin^{-1} , \cos^{-1} , \tan^{-1} , \cot^{-1} , \sec^{-1} and $\operatorname{cosec}^{-1}$ and write their domain and range

LAB MANUALS

1. To demonstrate a function which is not one one but is onto
2. To demonstrate a function which is one one but not onto
3. To draw the graph of $\sin^{-1} x$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$)

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Chemistry

Scientific Investigatory Projects

1. Study of quantity of casein present in different samples of milk.
2. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
3. Study of common food adulterants in fat, oil, sugar, turmeric power, chilli powder and pepper.
4. Study of the presence of oxalate ions in guava fruit at different stages of ripening.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class : 12th

Sub : Geography

1. Map
Primary activities
 - a) Area of subsistence gathering.
 - b) Major areas of nomadic herding of the world
 - c) Major area of extensive commercial grain farming major area of mixed farming of the world.
2. Terminal Stations of Transcontinental Railway- Trans, Siberian, Trans Canadian, Trans – Australian Railways

Major Airports

- Asia - Tokyo, Beijing, Mumbai, Jeddah, Aden
Africa - Johannesburg & Nairobi
Europe - Moscow, London, Paris, Berlin & Rome
North America – Buenos Aires, Santiago
Australia – Darwin & Wellington
3. Inland Water ways
Suez Canal, Panama, Canal, Rhine Waterways and St. Lawrence seaways.
 4. List the population data of J&K and Gujarat construct a line graph to represent the growth of population in these two regions. (2001-2011)

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Paintings

PAINTINGS ON ANY 3 TOPICS

1. Composition
2. Landscape
3. Still life
4. Madhubani
5. Geometric pattern
6. Nature study

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Physics

Page 1: Title Page

Include the following details clearly formatted:

- Project Title
- Student Name
- Roll Number
- Class & Section
- School Name & Address
- Subject: Physics
- Academic Session: [Year–Year]
- Teacher's Name

Page 2: Certificate

A formal certification by the teacher/school authority confirming the originality and successful completion of the project.

Sample Format:

This is to certify that [Student Name], Roll No. [XX], of Class XII, has successfully completed the Physics investigatory project titled "[Project Title]" under my supervision during the academic session [Year–Year].

This project is the student's original work and has been completed in accordance with the guidelines laid down by the CBSE.

(Signature of Teacher)

[Name of Teacher]

Designation: PGT (Physics)

Page 3: Acknowledgements

A concise paragraph expressing gratitude towards:

- Physics teacher(s)
 - School authorities
 - Parents and peers
 - Any individual or institution that supported the project
-

Page 4: Table of Contents

List all sections with corresponding page numbers for easy navigation. Example:

1. Title Page – 1
 2. Certificate – 2
 3. Acknowledgements – 3
 4. Table of Contents – 4
 5. Abstract ... and so on.
-

Page 5: Abstract

A brief summary (150–200 words) including:

- Purpose of the investigation
 - Methodology used
 - Key observations or results
 - Relevance and impact of the project
-

Page 6: Introduction

- Overview of the chosen topic
 - Importance and applications in real-world or academic contexts
 - Objective(s) of the project
-

Page 7 Onwards: Theoretical Background

- Explanation of the scientific concepts and principles involved
 - Relevant equations, laws, and derivations
 - Supporting diagrams and graphs (if required)
-

Next Page: Experimental Details / Procedure

- Materials and Apparatus Required
 - Experimental Setup (include clear diagrams)
 - Step-by-Step Procedure explaining how the experiment was conducted
-

Next Page: Observations & Results

- Tabulated data of observations
 - Graphs, charts, or visual representations
 - Calculations and derived values (if any)
 - Final results clearly
-

Next Page: Analysis & Discussion

- Interpretation of results and what they imply
 - Comparison with theoretical or expected values
 - Sources of error and their possible effects
 - Reflection on the original hypothesis or objective
-

Next Page: Conclusion

- Summary of findings
 - Confirmation of whether the aim was achieved
 - Limitations faced during the project
 - Suggestions for improvement or further research
-

Next Page: Bibliography / References

List all sources used in proper format. Examples:

- NCERT Physics Class XII
 - Research articles or other educational websites
-

Next Page (Optional): Appendices

Include any additional material:

- Raw data sheets
- Extra graphs or pictures
- Participation certificates
- Notes or supplementary calculations

Suggested Project Topics (any one)

1. Study of Transformers and Their Applications
2. Study of Diodes and Their Applications
3. Study of the Photoelectric Effect and Its Applications
4. Investigation of Internal Resistance/EMF of a Cell
5. Effect of Temperature on Resistivity of Insulators
6. Study of Semiconductors and Their Types
7. Study of Biot–Savart Law in Circular Current Loop.
8. Study of Eddy Currents and Their Applications

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Computer Science

Python Programming

1. Read a text file line by line and display each word separated by a #.
2. Write a Python code to find the size of the file in bytes, number of lines and number of words.
3. Write a function stats() that accepts a filename and report the file's longest line.
4. Write a program to display all the records in a file along with line number.
5. Write a function in python to count the number of lines in a text files 'story.txt' which is starting with an alphabet 'a'.
6. Write a program to remove all the lines from file 'answer.txt' that contain the character 'a' in the file and write other lines into another file 'answer1.txt'.
7. Write a program to read a text file and display the count of lowercase and uppercase letters in the file.
8. Write a function in python to read lines from a text file 'notes.txt' and display those lines which are starting with an alphabet 'k'.
9. Create a binary file 'student.dat' with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.
10. Create a binary file 'student.dat' with roll number, name and marks. Input a roll number and update the marks.
11. (a) Create a binary file "employee" that stores the records of employees and display them one by one.
(b) Display the records of all those employees who are getting salaries between 25000 to 30000.
12. Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
13. Write a program to add (append) Employee records onto a csvfile.
14. Write a program to read details of sports performance (sport, competition, prizes-win) of your school and store into a csv file.
15. Write a Python program to read specific columns from a "department.csv" file and print the content of the columns, department id and department name.
16. Write a Python program to implement a stack using a list data-structure.

Instructions:

- Write these practicals on practical notebook.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Informatics Practices

1. Create a panda's series from a dictionary of values and a ndarray.
2. Given a Series, print top 5 and bottom 5 elements of the series object.
3. Write a program to create a Series object with 6 random integers and having indexes as : ['p','q','r','n','t','v'].
4. Create a Data Frame quarterly sale where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category.
5. Write a program to create a data series and then change the indexes of the Series object in any random order.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – History

General Instructions:

1. Read all instructions carefully before beginning your work.
2. Holiday homework should be done neatly and systematically on A4 size sheets.
3. Use proper headings, subheadings, and bullet points wherever necessary.
4. Include relevant maps, timelines, pictures, or diagrams where appropriate.

1. URBAN PLANNING IN HAPPARAN VALLEY CIVILIZATION.

Include sketches, maps, or photos of sites like Mohenjodaro, Dholavira, and Harappa.

Discuss drainage, granaries, and trade practices.

2. THE MAURYAN EMPIRE: GOVERNANCE AND ECONOMY.

Include excerpts from Ashokan inscriptions or the Arthashastra.
Create a chart of administrative hierarchy.

3. BUDDHIST ARTICHETURE AND BELIEFS.

Focus on sites like Sanchi or Ajanta.

Discuss a comprehensive history of Buddhism and Jainism (special discussion of Buddhism in Ladakh region).

4. ART + HISTORY.

Create a miniature model, drawing, or 3D sketch of one of the following:

A Harappan house.

A Stupa (label parts: Anda, Harmika, Torana, Medhi).

An ancient Indian coin (with inscription or symbol).

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Biology

INVESTIGATORY PROJECTS

1. Mendelian and chromosomal Disorders.
2. Common Human diseases caused by Bacteria ,Virus, Fungi and Protozoa.
3. DNA Finger printing
4. Cancer
5. AIDS and Hepatitis
6. Role of Microorganisms in Industry
7. Mendelian Inheritance
8. Assisted reproductive technologies.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Entrepreneurship

Q1. PREPARE A PPT ON MARKET SURVEY ON MARKET MANAGEMENT

Q2. MAKE A PORTFOLIO ON BUSINESS PLAN ON

1. Dove
2. Ice Cream
3. Jeans
4. Pizza
5. KFC

Q.1&Q.2 Compulsory for all students

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Psychology

Case Study on Psychological Disorder

TOPICS OF CASE STUDY: ROLL NO:

- Depression (1,3,5,7,19)
- Anxiety (2,4)
- Substance related disorders (8,12,13,18)
- Trauma and stressor-related disorder (6,10,11,16)
- Obsessive- Compulsive and related disorders (9,14,15,17)

Outline for a Psychological Case Study

- * Title Page
 - Title of the Case Study
 - Student's Name
 - Class/Section
 - Date
- * Introduction
 - Brief introduction to the subject and the main psychological issues
- * Background Information
 - Detailed demographic and historical information about the subject
- * Presenting Problem
 - Description of the main psychological symptoms and issues
- * Theoretical Framework
 - Explanation of the psychological theories relevant to the case
- Assessment Methods
 - Tools and techniques used for assessment
 - Diagnosis
- Diagnosis (based on DSM-5/ICD-11 criteria -simplified)
 - Contributing Factors
 - * Analysis of biological, psychological, and social factors
 - Treatment Plan
 - * Detailed treatment plan
 - Ethical Considerations
 - * Discussion of ethical issues
 - * Conclusion
 - Summary and reflections
 - * References
 - List of sources

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Chemistry

Scientific Investigatory Projects

1. Study of quantity of casein present in different samples of milk.
Med Roll no [1 , 5 , 9 , 13 , 17]
Non Med [1 ,5 , 9 , 13 ,17 , 21 , 25]
2. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
Med Roll no. [2 , 6 , 10 , 14 , 18]
Non med [2, 6 , 10 ,14 ,18 ,22 ,26]
3. Study of common food adulterants in fat, oil, sugar, turmeric power, chilli powder and pepper.
Med Roll no. [3 , 7 ,11 ,15]
Non med [3 ,7 ,11 ,15 ,19 ,23 , 27 ,29]
4. Study of the presence of oxalate ions in guava fruit at different stages of ripening.
Med Roll no. [4 , 8 , 12 , 16]
Non med [4, 8 , 12 , 16 , 20 , 24 , 28]

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Sociology

1. Challenge faced by marginalised communities.
2. Sociology of gender.
3. Effect of single parenting.
4. Role of education in social mobility.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – English

Prepare a Project File on any ONE of the following Topic

- Q1. "The Last Lesson" by Alphonse Daudet, examining the importance of language and culture in times of conflict.
- Q2. "Lost Spring" by Arundhati Roy, investigating issues of poverty, child labour, and social injustice.

NOTE: -

- The project should be handwritten, include 20-25 sheets of paper, and use coloured pens, pictures.
- Projects must include sections like an index, certificate of completion, acknowledgements, objectives, content about the assigned text, and a bibliography.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Economics

Make a project file on the topics given below:-

- Money and Banking (Macro-Economics) for Roll Numbers (1-5)
- Indian Economy on the Eve of Independence for Roll Numbers (6-10)
- Economic Reforms (Indian Economy) for Roll Numbers (11-15)
- Determination of income and Investment Multiplier for Roll Numbers (16-20)

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Business Studies

- **Business Studies :-** Research based case study on “Principals of management “ by Henry Fayol.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Accounts

- Q1. X, Y and Z are three partners in a firm since 31-3-2015. They share profits and losses equally. According to the partnership agreement interest on drawings is to be charged at the rate of 10% p.a. Drawings made by partners during the year 2014-2015 are as follows:-
The profits for the year amount to Rs. 15,000. You are required to compute the interest on drawings recoverable from the partners.
- Q2. Sharma and Arora were partners in a firm sharing profits in the ratio of 5 : 3. Their fixed capitals on 1st April, 2010 were Sharma ₹ 60,000 and Arora ₹80,000. They agreed to allow interest on capital @ 12% per annum and to charge on drawings @ 15% per annum.
The profit of the firm for the year ended 31st March, 2011 before all the above adjustments were ₹ 12,600. The drawings made by Sharma were ₹2,000 and by Arora ₹ 4,000 during the year.
Prepare profit and loss appropriation account of Sharma and Arora. Show your calculations clearly. The interest on capital will be allowed even if the firm incurs loss.
- Q3. Rajiv and Sanjeev were partners in a firm. Their partnership deed provided that the profits shall be divided as follows
First ₹ 20,000 to Rajeev and the balance in the ratio of 4 : 1. The profits for the year ended 31st March, 2017 were ₹ 60,000 which had been distributed among the partners. On 1-4-2016 their capitals were Rajeev ₹90,000 and Sanjeev ₹ 80,000. Interest on capital was to be provided @ 6% p.a. While preparing the profit and loss appropriation interest on capital was omitted. Pass necessary rectifying entry for the same. Show your workings clearly
- Q4. A business has earned average profits of Rs. 1,00,000 during the last few years and the normal rate of return in similar business is 10%. Find out the value of goodwill by
(i) Capitalisation of super profit method.
(ii) Super profit method, if the goodwill is valued at 3 years' purchase of super profit. The assets of the business were Rs. 10,00,000 and its external liabilities Rs. 1,80,000. Q 5 : Amen purchased B's business with effect from 1st April 2019. It was agreed that the firm's goodwill will be valued at

two year's purchase of average normal profit of the last three years. Profits of B business for last three years ended 31st march were:-

2017: Rs. 1,00,000 (including an abnormal gain of Rs. 10,000)

2018: Rs. 1,10,000 (after charging an abnormal loss of Rs. 20,000)

2019: Rs. 85,000 (including interest of 5,000 from non-trade investment)

- Q5. Madhu and Neha were partners in a firm sharing profits and losses in the ratio of 3 : 5. Their fixed capitals were f 4,00,000 and ₹ 6,00,000 respectively. On 1st January, 2016. Tina was admitted as a new partner for 14th share in the profits. Tina acquired her share of profit from Neha. Tina brought ₹ 4,00,000 as her capital which was to be kept fixed like the capitals of Madhu and Neha. Calculate the goodwill of the firm on Tina's admission and the new profit sharing ratio of Madhu, Neha and Tina. Also, pass necessary journal entry for the treatment of goodwill on Tina's admission considering that Tina did not bring her share of goodwill premium in cash. Calculate value of the firm's goodwill.

SUMMER HOLIDAYS HOMEWORK

Session 2025-26

Class -12th

Subject – Political Science

Project work

Topics:

1. Challenges faces by India after independence.

Students

1. Aayat 2. Babar 3. Chahat 4. Hansika 5. Himani

2. End of bipolarity and its impact on world politics.

Students

1. Kanan 2. Mahika. 3. Mansi 4. Mehak 5. Nandni

3. Contemporary centre of Power.

Students:

1. Prithvi 2. Ritish. 3. Ronak 4. Saqib 5. Waqar.