



JAGANNATH INTERNATIONAL SCHOOL

SUMMER
HOLIDAY HOMEWORK
2024-2025
CLASS -XI



SESSION 2024-25
HOLIDAY HOMEWORK
CLASS XI

ENGLISH

- Make a detailed project on the topics as discussed in the class according to CBSE guidelines.
- Students can use any medium to write the project (typed or handwritten).
- Use colorful pictures also.
- Revise the syllabus done so far.

MATHEMATICS

- **Task 1: Concept Review and Assignment**
Revise Chapter 1 – 5 from your NCERT textbook. Complete the assigned exercises from these chapters in your Mathematics notebook.
- **Task 2: Math Lab Activity**
Perform an activity related to Sets from Chapter 1 in your Mathematics activity file.
Also, Complete 5 Activities in your Mathematics lab manual file, as discussed in class. The activities are available in the assignment booklet. The activity files are also due on July 1, 2024.
- **Task 3: Mathematical Exploration at Jantar Mantar**
Visit Jantar Mantar physically or virtually using Google Earth and explore the mathematical instruments available there. Gather information about the mathematical principles used in constructing Jantar Mantar. Compile this information on a light green pastel sheet along with pictures and write-ups.

Answer the following questions (based on Mathematics and Mathematical Principle's used):

1. What is the significance of the name "Jantar Mantar"?
2. Evaluate the accuracy of the Samrat Yantra sundial.
3. Identify and briefly describe the astronomical instruments at Jantar Mantar.
4. Explain the importance of the Ram Yantra.
5. Describe the functioning of the Jai Prakash Yantra.
6. Discuss the purpose of the Chakra Yantra.
7. Provide brief explanations of the following mathematical instruments at Jantar Mantar:
 - Sundials
 - Astrolabes
 - Giant Instruments

PHYSICAL EDUCATION

- The '**Khelo India Program**' is an initiative by the Government of India to encourage sports in the country. Present a project on the vision, mission, aims and the objectives of '**Khelo India**'

PSYCHOLOGY

- Prepare Model as per discussion in class (Roll no. 1105 C to 1108 C and Chetanya, Tanishka)
- Do the given assignment in your school register only.
- Prepare Projects on given topics.

ECONOMICS

Write the synopsis of the discussed CBSE projects in the class e.g.

| Topic | |
|--|---|
| Effect on PPC due to various government policies | Invisible Hand (Adam Smith) |
| Opportunity Cost as an Economic Tool (taking real-life situations) | Effect of Price Change on a Substitute Good (taking prices from real-life visiting local market) |
| Effect on equilibrium Prices in Local Market (taking real-life situation or recent news) | Effect of Price Change on a Complementary Good (taking prices from real-life visiting local market) |
| Solar Energy, a Cost-Effective Comparison with Conventional Energy Sources | Bumper Production- Boon or Bane for the Farmer |

Any other newspaper article and its evaluation on the basis of economic principles

Any other topic

Project: What's Going Around Us

Suggestive List

1. Micro and small scale industries
2. Food supply channel in India
3. Contemporary employment situation in India
4. Disinvestment policy
5. Health expenditure (of any state)
6. Goods and Services Tax Act
7. Inclusive growth strategy
8. Human Development Index
9. Self-help groups
10. Any other topic

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

- Enable the student to understand the scope and repercussions of various Economic events and happenings taking place around the country and the world. (eg. The Dynamics of the Goods & Services Tax and likely impacts on the Indian Economy or the Economics behind the Demonetization of 500 and 1000 Rupee Notes and the Short Run and Long Run impact on the Indian Economy or The impact of BREXIT from the European Union etc.)
- Provide an opportunity to the learner to develop economic reasoning and acquire analytical skills to observe and understand the economic events.
- Make students aware about the different economic developments taking place in the country and across the world.
- Develop the understanding that there can be more than one view on any economic issue and to develop the skill to argue logically with reasoning.
- Compare the efficacy of economic policies and their respective implementations in real world situations and analyze the impact of Economic Policies on the lives of common people.
- Provide an opportunity to the learner to explore various economic issues both from his/her day to day life and also issues which are of broader perspective.

SUBJECT AND ART INTERGRADED-FINE ART AND ECONOMICS

Scope of the project:

- Introduction
- Details of the topic
- Pros and Cons of the economic event/happening
- Major criticism related to the topic (if any)

- Students' own views/perception/ opinion and learning from the work
- Any other valid idea as per the perceived notion of the student who is actually working and presenting the Project-Work.

PRESENTATION-

- At the end of the stipulated term, each student will present the work in the Project File (with viva voce)
- It will be an independent, self-directed piece of study
- The project should be handwritten on A4 size sheet.
- Students will prepare economics project as per following headings:
 - Acknowledgement
 - Index'
 - Cover page
 - Introduction of the concept
 - Analysis/explanation and interpretation
 - Conclusion
 - Credits/list of resources used/bibliography

Rubrics: (2.5 marks each)

a. Art b. Presentation c. Content d. Creativity

➤ **Do the following questions in your notebook:**

1. **Only scarce goods attract price.” Comment.**
2. **“Scarcity and Choice go together”. Comment.**
3. **“An economy always produces on, but not inside, a PPC”, Defend or refute the statement.**
4. What are the tools used, related to statistical study?
5. Define statistics as a singular noun and plural noun.
6. Statistical methods are no substitute for common sense. Comment.
7. Why is a pilot survey important?
8. Frame at least four appropriate multiple choice options for following questions
 - (i) Which of the following is the most important when you buy a new dress?
 - (ii) How often do you use computers?
 - (iii) Which of the newspapers do you read regularly?
 - (iv) Rise in the price of petrol is justified.
 - (v) What is the monthly income of your family?
9. You want to research on the popularity of vegetable atta noodles among children. Design a suitable questionnaire for collecting this information.
10. In a village of 200 farms, a study was conducted to find the cropping pattern. Out of the 50 farms surveyed, 50% grew only wheat. Identify the population and the sample here.

BUSINESS STUDIES

1. Prepare a collage on following topics as allotted:

Roll No (1 to 5): Indian MNC's and their CEO's with their brand name , Brand mark and Taglines.

Roll No (6 to 10): Non- Indian MNC's and their CEO's with their brand name , Brand mark and Taglines.

Roll No (11 to 15): Various quality marks and their issuing Agencies in India and World-wide.

Roll No (16 to 20): Various scams that took place in India after independence with their volume and reasons.

Roll No (21 to 26): Popular Co-Operative societies in India with their details.

2. Revise both the Units covered in class:

- Evolution and Fundamentals of Business
- Forms of Business Organization

3. Write an article on any corporate/current issue or any creative idea for business.

ACCOUNTANCY

1. Prepare PPT on following topics allotted as per your Roll No.:

Roll No (1 to 5): Basic Accounting terms

Roll No (6 to 10): Accounting Equations

Roll No (11 to 15): Accounting Principles

Roll No (16 to 20): Meaning and advantages of Accounting

Roll No (21 to 26): Meaning and limitations of Accounting

2. Revise all chapters covered in class and prepare notes in your notebook:

Ch 1: Introduction to Accounting

Ch 2: Basic Accounting terms

Ch 3: Theory Base of Accounting

Ch 4: Bases of Accounting

Ch 5: Accounting equation

PHYSICS

- Solve the given assignment in your register.
- Revise Chapters 2, 3 and 4.
- Prepare working model on the topics assigned in the class. Links have been shared for reference.

| S NO. | TOPICS | LINK |
|-------|--|---|
| 1 | Future Transportation System | future transportation project transport and communication based science project (youtube.com) |
| 2 | Piezoelectric shoe/Free Energy generating Shoe | Inspire Award Project Free energy Generating Shoes Best science Project (youtube.com) |
| 3 | Automatic Fire Extinguisher | Inspire Award Project How to make Automatic Fire Extinguisher without Arduino Science Project (youtube.com) |
| 4 | Spirograph | (3) spirograph project - YouTube |
| 5 | Spiral Marble Machine | School Science Projects Marble Machine (youtube.com) |
| 6 | Soil Moisture Sensor | (7) how to make Soil moisture sensor for plants at home - YouTube |

CHEMISTRY

- Solve the given assignment in your register.
- Complete Practical files.
- Make 3 D Structure of an organic compound from your syllabus using clay.
- Prepare a working model on the topics assigned in the groups as discussed in the class. Link has been shared for reference.

| S NO. | TOPICS | LINK |
|-------|------------------------------|---|
| 1 | Waste water treatment plant. | https://youtu.be/3gel2r9EZkw?si=s09ZUvabSX6XhvHn |
| 2 | plastic waste management. | https://youtube.com/shorts/89lZjsS5nC0?si=EyA3_yPXY9lZH0UH |

| | | |
|---|---------------------------|---|
| | | |
| 3 | Carbon collector Machine. | https://youtu.be/Dmg9j2LZE6M?si=_e5xGE_EeMIMihlu |

BIOLOGY

Prepare a project on a suitable topic from your book. (as discussed)

- Complete the practical file.
- Make a working model. (as discussed)
 1. Vertebral column- <https://pin.it/wrCNtUrGs>
 2. Brain <https://pin.it/5ngFQdW3p>
 3. Aquaponics farming <https://pin.it/6Pthiqvv9>
 4. Eye <https://pin.it/57VJ35GA>
 5. Kidney <https://pin.it/41Qdz6OB4>
 6. Haemodialysis <https://youtu.be/6vdlhm4UjQo?si=4Xg3vmBSsScBcQE>

- **Do all these questions in biology register.**

Q1. Write the phases of the cell cycle against each of the events

- a) The disintegration of the nuclear membrane
- b) The appearance of the nucleolus
- c) Division of centromere
- d) Replication of DNA

Q2. Telophase is the reverse of prophase. Elucidate the statement.

Q3. Which stain is usually used to color chromosomes?

Q4. Fill in the blanks

- It is observed that heart cells do not exhibit cell division. Such cells do not divide further and exit _____ phase to enter an inactive stage called _____ of cell cycle.
- In which phase of meiosis are the following formed.
 - a. Synaptonemal complex _____
 - b. Recombination nodules _____
 - c. Appearance/activation of enzyme recombinase _____
 - d. Termination of chiasmata _____

e. Interkinesis _____

INFORMATIC PRACTICES

Instructions:

- Apart from Holiday homework complete all work that was taught in offline and online class in your class notebook.
- Cover your class notebook
- First complete Class work then write heading Holiday Homework on one page start your Holiday HW.
- Apart from the questions given here some worksheet will also be sent. Do that also in Holiday HW.
- Revise whole syllabus that was completed. Just after PT-1 your class test will be conducted.
- Make project on big chart paper with properly readable text. You can paste print out of picture .
Cover Chart with Cellophane sheet to make it more attractive. Topics will be shared in group.

| | |
|-----|---|
| 1. | Write a program that prints the numbers 1 to 5 separated by commas using the print function. |
| 2. | Write a program that prints the words "Hello" and "World" on the same line with a space between them using the print function. |
| 3. | Write a program that prints the days of the week separated by commas and ends with a period. |
| 4. | Write a menu driven to calculate area of circle, square, rectangle, triangle. |
| 5. | Write a program to swap two numbers where numbers will be entered by user by using third variable |
| 6. | Write a program to calculate simple interest where P, R and T will be entered by user. |
| 7. | Write a program to calculate the electricity bill based on the units consumed. The charges are as follows: <ul style="list-style-type: none">• For the first 100 units: Rs 5 per unit• For the next 100 units: Rs 6 per unit• Beyond 200 units: Rs 7 per unit |
| 8. | Write a program that finds the largest of three numbers using conditional expressions. |
| 9. | Write a program that takes a grade as input and prints the corresponding grade description. |
| 10. | Write a program to determine if a student has passed or failed based on marks obtained in three subjects. The passing mark for each subject is 40. Use logical operators to simplify the conditions. |
| 11. | Write a program that asks the user for a number and determines whether it is positive, negative, or zero. |
| 12. | Write a program that prints the numbers from 1 to 10 using a for loop |
| 13. | Write a program to print all even numbers between 1 and 50. |
| 14. | Write a program that prints the numbers from 10 to 25 using a for loop |
| 15. | Write a program that prints the numbers from 1 to 50 which are divisible by 3 and 5 using a for loop |

COMPUTER SCIENCE

Instructions:

- Apart from Holiday homework complete all work that was taught in offline and online class in your class notebook.
- Cover your class notebook
- First complete Class work then write heading Holiday Homework on one page start your Holiday HW.
- Apart from the questions given here some worksheet will also be sent. Do that also in Holiday HW.
- Revise whole syllabus that was completed. Just after PT-1 your class test will be conducted.
- Make project on big chart paper with properly readable text. You can paste print out of picture . Cover Chart with Cellophane sheet to make it more attractive. Topics will be shared in group.

| | |
|-----|---|
| 1. | Write a program to calculate the electricity bill based on the units consumed. The charges are as follows: <ul style="list-style-type: none">• For the first 100 units: Rs 5 per unit• For the next 100 units: Rs 6 per unit• Beyond 200 units: Rs 7 per unit |
| 2. | Write a program that finds the largest of three numbers using conditional expressions. |
| 3. | Write a program that takes a grade as input and prints the corresponding grade description. |
| 4. | Write a program to determine if a student has passed or failed based on marks obtained in three subjects. The passing mark for each subject is 40. Use logical operators to simplify the conditions. |
| 5. | Write a program that asks the user for a number and determines whether it is positive, negative, or zero. |
| 6. | Write a program that prints the numbers from 1 to 50 which are divisible by 3 and 5 using a for loop |
| 7. | Write a program to find the sum of the first 50 natural numbers. |
| 8. | Write a program to print the multiplication table of a given number by using for loop. |
| 9. | Write a program to find the sum of all elements in a given list by using for loop. |
| 10. | Write a program to print all even numbers between 1 and 50. |
| 11. | Write a program that prints the numbers 1 to 5 separated by commas using the print function. |
| 12. | Write a program that prints the words "Hello" and "World" on the same line with a space between them using the print function. |
| 13. | Write a program that prints the days of the week separated by commas and ends with a period. |
| 14. | Write a menu driven to calculate area of circle, square, rectangle, triangle. |
| 15. | Write a program to swap two numbers where numbers will be entered by user by using third variable |

POLITICAL SCIENCE

Dear Students,
During Summer Vacation you all need to do some work.

All details are given below for the same:

1. Project work (as per CBSE guidelines)
2. Revision work (Ch-1,2,3, and 4)
3. Assignments (objective type, very short answer & passages)
4. Cartoon based questions (book-1)

Guidelines for Project Work

The expectations of the project work are that-

1. Learners are complete only one project in each academic session
2. Project should be hand written
3. It will be an independent, self-directed piece of study. Scope of the project.

Learners will work upon the following lines as suggested here;

1. Choose a title/topic
2. Certificate
3. Acknowledgement
4. Index
5. Introduction
6. Causes, Main event, Origin, history
7. Research Questions
8. Selection of Respondent
9. Methodology
10. Questionnaire
11. Report Writing/presentation of data
12. Draw the relevant Conclusion
13. Limitations
14. Bibliography

Topics: Students can select any one topic from prescribed NCERT textbook. Will discuss with teacher.

Note:

- Student will choose any one topic and use interleaf A4 size sheet for project work. (read instructions carefully)
- Assignments you all will get weekly; it can be in the form of google forms or pdf file.
- All cartoons analysis needs to do in your political science notebook.
- Every child will revise all work done in class.