



SPRINGFIELD PUBLIC SCHOOL

Holiday Homework

Session(2024-25)

CLASS:- 11th

Dear Parents

The much awaited summer break is here! This is the time that children enjoy the most. Along with all the fun activities that they will do, we would also like to keep them productively occupied with some academic work. Our goal is to provide continuous educational opportunities and practice for students. We believe, together, we will write the best story for our children! "Each child is an individual and must be allowed to bloom, express his feelings and ideas.

Wishing all the children 'HAPPY HOLIDAYS'!

SPECIAL INSTRUCTIONS :

1. Do every work neatly and in a clean manner.
2. Read and revise the course covered in the class.
3. Parents are requested to guide their children while doing the activities.
4. Homework will be assessed on the basis of neatness, creativity and originality of ideas.

Subject: English

IMPORTANT INSTRUCTIONS:

- It is Mandatory to Buy Sharp Insights Workbook. It is available at Amazon and Nearby bookstore so make sure you buy it do all the prescribed Worksheets.
- Listen to podcasts, documentaries, interviews etc. on the given topics.
- Do a thorough research on the topic assigned.
- Prepare a research in about [800-1000](#) words describing the topic/issue/ giving your own opinion/ suggestions/measures/ viewpoints/its impact on people/your learning experience. The project should be neat, legible, with an emphasis on quality of content, accuracy of information, creative expression, proper sequencing and relevance as per the assigned topic.
- Use coloured practical sheets.
- Solve the worksheets from module -2 Notice Writing & Module 3 Invitation & Reply Writing.

- Solve the worksheets from Module-7 & 8 of Literature I & II of all the Chapters done till now in the class

Prepare English Research File on any one topic from the following :-

1. Research on the Egyptians civilisations –with particular reference to Tut’s Mummy and its discovery. Stick pictures.
2. Research on Khushwant Singh’s life and works. Find out about the role of Khushwant Singh’s Father in building Delhi.
3. Research on sailing terminology and parts of a boat and gather information about Isle Amsterdam.
4. Design a poster as an appeal for conserving water as most parts of India are facing serious problems and have been hit by drought
5. Read the The Canterville Ghost by Oscar Wild as prescribed by CBSE and highlight any one of the characters that fascinates you the most
6. Cut out 5 clippings of Classified Ads under the heads – For sale ,
7. To-let, Situation vacant
8. For-matrimonial Pets / kennel

Note : The Holiday Homework should be done in File

Subject: Informatics Practices

1. Frame out internal MCQs from Unit-1(Computer System)
2. Learn and write the back exercises with Question answers of Unit --1 (Computer System)
3. Find out the answers of these Questions given below in worksheet. Worksheet is on page no -23.

Note- write down MCQs and Question answers part in a fair notebook.

Subject: Economics

General Instructions to prepare the project:

- 1.The project should be simple, brief and easy.
- 2.It should be handwritten.
3. The cover page should be neat and simple .
- 4.More credit will be given to original drawings, illustrations and mind maps. The project should not have any political comments or reference to any political party.
- 5.While choosing the topic, the student should keep in mind that he can be questioned on what, when how.

Some suggestive topics are:

- Price determination
- Price decimation
- Opportunity cost
- Production possibility curve
- Demand and its determinants
- Supply and its determinants
- Production – Returns to a factor
- Cost functions and cost curves
- Different Market Structures and their comparison
- Perfect Competition
- Monopoly
- Oligopoly – Reliance jio as a case study.
- Monopolistic competition
- A Comparison between different Market Forms
- Demonetization – Its aftereffects
- Economics behind IPL
- BRICS Bank – Scope and opportunities.
- Digitization
- Goods and Service Tax
- Currency war between US and China

Subject: Business Studies

Complete and prepare the course completed till date thoroughly.

Project:

- Prepare a project file on the topic Social Responsibility of Business and Business Ethics.
- Take examples of some companies serving the society and take one company showing all the work done in the field of social responsibility.
- Facts and figures are to be included.

Subject: Accountancy

- Prepare a project file on source documents.
- Revise the chapters which we have covered in the class.

Subject: Fine-Arts

1. Project Title: "Artificial Intelligence Collaborative Art"

Objective:

Create collaborative artworks with the assistance of artificial intelligence (AI), exploring the

intersection of technology and creativity.

Materials Needed:

- Digital drawing software or apps
- Access to AI tools or platforms (such as neural style transfer, image generation, etc.)
- Optional: Traditional art supplies for additional hand-drawn elements

Instructions:

1. **Select AI Tools:**

- Research and choose AI tools or platforms that can assist in generating or enhancing artwork. Look for tools that offer features like neural style transfer, image generation, or artistic filters.

2. **Generate Initial Artwork:**

- Use AI tools to generate a base image or elements for your collaborative artwork. Experiment with different styles, effects, and parameters to create visually interesting starting points.

3. **Collaborative Process:**

- Share the generated artwork with your classmates or friends who are also participating in the project. Collaborate remotely by exchanging digital files or working together in real-time using collaborative drawing software.

4. **Iterative Enhancement:**

- Each participant adds their creative touch to the artwork, whether it's adding hand-drawn elements, modifying AI-generated layers, or incorporating additional digital effects.

5. **Feedback and Iteration:**

- Provide feedback to each other and iterate on the artwork collaboratively. Experiment with different combinations of AI-generated and hand-drawn elements to achieve the desired aesthetic and narrative.

6. **Finalization and Presentation:**

- Once the collaborative artwork is complete, finalize it by integrating all contributions and polishing the overall composition. Prepare to present the artwork, highlighting the collaborative process and the innovative use of AI in the creative workflow.

Tips:

- Encourage experimentation and exploration with AI tools to push the boundaries of creativity.
- Emphasize the collaborative aspect of the project, fostering communication and teamwork among participants.
- Reflect on the implications of using AI in art creation, discussing topics such as authorship, creativity, and the role of technology in the artistic process.

This project combines cutting-edge technology with traditional artistic collaboration, offering

students a unique opportunity to explore new creative possibilities and engage with contemporary issues in art and technology.

2. Project Title: "Start Making"

Objective:

Explore various artistic techniques, including still life drawing with pencil shading and oil pastels, creating watercolor landscapes, and producing innovative artworks inspired by contemporary artists

Materials Needed:

1. Drawing paper
2. Pencils and erasers
3. Oil pastels
4. Watercolour paper
5. Watercolour paints and brushes
6. Optional: Additional mixed media materials for contemporary artworks (collage elements, acrylic paints, etc.)

Instructions:

1. Still Life Drawing with Pencil Shading and Oil Pastels:

2. Choose a simple still life setup with objects like fruits, flowers, or household items.
3. Start by sketching the basic shapes and outlines of the objects lightly with a pencil.
4. Use pencil shading techniques to add depth and dimension to your drawing, paying attention to light and shadow.
- E5. Once the shading is complete, enhance the colors and textures of the objects using oil pastels, layering and blending them to create a vibrant and realistic representation.

3. Watercolor Landscapes:

- Select a landscape scene as your reference or inspiration, such as a serene countryside, a bustling cityscape, or a majestic mountain range.
- Begin by lightly sketching the main elements of the landscape on watercolor paper using a pencil.
- Use watercolor paints to fill in the sky, land, and other areas of the landscape, applying washes of color and blending them to create smooth transitions.
- Add details and textures to the landscape, such as trees, buildings, or rock formations, using a combination of wet-on-wet and wet-on-dry techniques

- Innovative Contemporary Artist-Inspired Artworks:

- Research contemporary artists whose work inspires you and select one or more to serve as inspiration for your own creations.
- Study the techniques, themes, and artistic approaches used by these artists, and consider how

you can adapt and reinterpret them in your own artwork.

- Experiment with mixed media techniques, such as collage, acrylic painting, or digital art, to create innovative and expressive artworks that reflect your personal style while drawing inspiration from contemporary art trends.

Presentation:

- Prepare to present your artworks in class, discussing the techniques, materials, and inspirations behind each piece.
- Reflect on your artistic process, challenges faced, and discoveries made throughout the creation of the artworks.
- Encourage feedback and discussion among classmates to foster a supportive and collaborative artistic environment.

Additional Tips:

- Take your time to observe and study the details of your subjects when creating still life drawings and landscapes.
- Experiment with different textures and blending techniques to achieve desired effects in your oil pastel and watercolor artworks.
- When creating contemporary-inspired artworks, allow yourself to explore and push the boundaries of traditional techniques to create unique and innovative compositions

Subject: Math

ASSIGNMENT 1

CHAPTER 1 (SETS THEORY)

(SECTION A- 1 mark questions):

- Q1. Write the roster form of $H = \{x/ x \in N \text{ and } 5 < x^2 < 50\}$.
- Q2. Give example of two sets whose intersection is an empty set.
- Q3. How many subsets a set has containing 5 elements.
- Q4. Write the set $\{\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \dots\}$ in set builder form.
- Q5. Define power set.

(Section B- 2 mark questions)

- Q6. Write all the subsets of the set $\{\phi, 1\}$.
- Q7. Find sets A, B and C such that $A \cap B, B \cap C$ and $A \cap C$ are non empty sets and $A \cap B \cap C = \emptyset$.
- Q8. Two finite sets having m and k elements. If the total number of subsets of the first set is 56 more than the total number of subsets of second set, then find m and k.
- Q9. For all sets A, B and C, is $(A \cap B) \cup C = A \cap (B \cup C)$? justify your answer.
- Q10. If $U = \{1,2,3, \dots, 10\}$, $A = \{x: x \text{ is prime}\}$, $B = \{x: x \text{ is even integer}\}$. Then write the value of $A \cap B^c$.

(Section C – 4 mark questions)

Q11. A and B are two sets such that $n(A - B) = 14 + x$, $n(B - A) = 3x$ and $n(A \cap B) = x$. draw a venn diagram to illustrate this information. If $n(A) = n(B)$, find (1) the value of x (2) $n(A \cup B)$.

Q12. A survey shows that 63% people watch news channel A whereas 76% watch news channel B. if $x\%$ watch both the channels , prove that $39 \leq x \leq 63$.

Q13. If $P(A) = P(B)$, show that $A = B$.

Q14. Let A and B be sets. If $A \cap X = B \cap X = \emptyset$ and $A \cup X = B \cup X$ for some set X, show that $A = B$

Q15. If A and B are two sets containing 12 and 20 elements respectively, what can be the minimum number of elements in $A \cup B$? find also, the maximum number of elements in $A \cup B$.

(SECTION D – 6 MARK QUESTIONS)

Q16. In a survey of 100 students, the number of students studying the various languages were found to be: English only 18, English but not Hindi 23, English and Sanskrit 8, English 26, Sanskrit 48, Sanskrit and Hindi 8, no language 24. Find how many students were studying Hindi.

Q17. In an examination 80% students passed in maths, 72% passed in science and 13% failed in both the subjects. If 312 students passed in both the subjects, find the total number of students who appeared in the examination.

Q18. A college awarded 58 medals in football, 15 in basketball and 20 in cricket. If these medals went to a total of 58 men and only three men got medals in all the three sports, how many received medals in exactly two of the three sports.

Q19. Out of 100 students, 15 passed in English, 12 passed in maths, 8 in science, 6 in English and maths, 7 in maths and science, 4 in English and science and 4 in all three. Find how many passed in

1) Maths and science but not English.

2) In more than one subject.

Q20. For sets A, B and C using properties of sets , prove that

$$A - (B \cup C) = (A - B) \cap (A - C)$$

$$A - (B \cap C) = (A - B) \cup (A - C)$$

Maths Assignment-2 (Class XI) Topic: sets

Section: A

1. If $A = \{x : x \neq x\}$ then represent A in tabular form.

2. If $A = \{\emptyset, \{\emptyset\}\}$ then what will be $n(P(P(A)))$.

3. If in a survey 63 % of Americans like cheese whereas 76 % like apples then find the range of the Americans which will like both cheese and apples.

4. If $n(A) = 8$ and $n(B) = 4$ and B is a subset of A then find $n(A \cap B)$.

5. If $a \in N = \{ax : x \in N\}$, then the find the set $3N \cap 7N$.

Section B

6. In a battle 70 % of the combatants lost one eye ,80 % an ear ,75% an arm, 85 %a leg, and x% lost all of the four limbs. What will be the minimum value of x ? Explain the disadvantages of battles.
7. In a school 20 teachers either teach maths or physics .12 of them teach mathematics while 4 teach both the subjects. Then find the number of teachers teaching physics only. Explain how these two subjects related with each other.

Section C

8. If $A = \{ a, b, c, e \}$, $B = \{ a, e, i, o \}$, $C = \{ a, e, i, o, u \}$ $U = A \cup B \cup C$
Then Evaluate $(A - B) \cup (B - C) \cup (C - A) \cup (A \cap B \cap C) c$
9. For sets A,B and C using properties of sets, prove that
 $A \cap (B - C) = (A \cap B) - (A \cap C)$
10. If A and B are two sets then prove that $(A \cup B) c \cup (A c \cap B) = A c$.

Section D

11. In a survey of 100 students the number of students studying the various languages were found to be : English only 18, English but not Hindi 23,English and Sanskrit 8 English 26, Sanskrit 48,Sanskrit and Hindi 8, no language 24. Find :
- How many students were studying Hindi only.
 - How many students were studying English and Hindi.
 - Explain importance of language in education.
12. A survey conveys the result that 21 persons liked product soft drink,26 liked coconut water and 29 liked milk shakes. If 14 persons liked product soft drink and coconut water; 12 persons liked product soft drink and milk shakes 14 persons liked coconut water and milk shakes and 8 liked all the three products. Find :
- How many of them liked at least 2 products.
 - How many liked at most 2 products.
 - Which drink you feel has more nutrient value? Comment.

Maths Assignment-3 (Class XI)

Topic: Linear Inequalities

Section A

A. Represent the solution on number line:

- $-5 \leq (2 - 3x) \leq 7/4$
- $3 / (x - 4) \geq 0$
- $|x - 3| \geq 2$.

Section B

- $|x - 3| / (x - 3) \geq 0$
- $1/x + 1 > 1/x$

Section C

6. Solve the system of in equations : $x / (2x+1) \geq \frac{3}{4}$ $6x / (4x-1) \geq \frac{1}{2}$.

7. Evaluate x: $x + 3 / (2x+5) \geq -5$

8. Solve for x:

$$|x - 5| / (x + 2) \leq 1$$

9. $|x+1| + |2x-5| \leq 7$

10. How many litres of water have to be added to 23 litres of Sikanji (Lemon water) containing 29% sugar solution so that the resulting mixture will contain more than 11 % but less than 18% sugar content. Explain how Sikanji is good for health.

Section D

11. Solve the system of in equations graphically :

$$5x + 2y \leq 10 ; 2x + 3y \leq 6; x + 4y \leq 8 ; x \geq 2 ; y \geq 3.$$

12. $2x - y \leq 4; 3y - 4x \leq 12;$

Humanities
Subject: Political Science

Topics for project:

Guidelines for Project Work

The expectations of the project work are that

1. learners have to complete only one project from the given topics.

2. Project should be hand written

3. It will be an independent, self-directed piece of study Scope of the project Learners may work upon the following lines as suggested following:

1. Choose a tittle/topic

2. Certificate

3. Acknowledgement

4. Index

5. Introduction

6. Causes, Main event, Origin, history

7. Consequences, Results
8. Selection of Respondents
9. methodology
10. Report writing

- Human Rights
- Fundamental Rights
- Directive principles
- Framework of Indian Constitution
- Right to Property
- Indian Constitution as a Bag of Borrowing

Questions:-

Q 1 Why should we respect our Constitution?

Q 2 Indian constitution contains some provisions for Social Justice. Examine

Q 3 Write a note on the constituent Assembly.

Q 4 What is Constitution?

Q 5 what are the main functions of the constitution ?

Q 6 what is an unwritten constitution?

Q 7 what was the significance of the cabinet mission plan?

Q 8 Discuss the importance of a written constitution

Q 9 How are the powers demarcated in the Indian Constitution?

Q 10 what goes are set in the Indian Constitution?

Q 11 Why Fundamental Rights are important?

Q 12 What does the Right to Equality stand for?

Q 13 What do you mean by 'Right to Freedom'?

Q 14 "Rights and are Duties interrelated." Justify the statement.

Q 15 What do the Fundamental Duties refer in Indian Constitution?

Q 16 What are Directive Principles of State Policy?

Q 17 "India is a secular state justify the statement."

Note: - Learn and write all the Questions and their answers.

Subject: Physics

- Do the assignments given

Subject: Chemistry

- Do the assignments given