



**DEEP PUBLIC SCHOOL**

**Your Child's future is Our Priority !!**

**CLASS 10<sup>TH</sup> (2025-26)**

**HOLIDAY HOMEWORK**

**MATHS**

- 1) Do attempt enclosed assignments from Chapters Real number, Polynomial and Pair of linear equation in two variable in a separate notebook

**ASSIGNMENT 1: REAL NUMBERS**

Q1) Find the greatest number that will divide 43,91 and 183 so as to leave the same remainder in each case.

Q2) Find the least number of square tiles required to pave the ceiling of a room 15m 17cm long 9m 2cm broad.

Q3) Find the least number which should be added to 2497 at the sum is exactly divisible by 5,6,4 and 3.

Q4) The traffic lights at three different road crossings change after every 48 seconds 72 seconds and 108 seconds simultaneously. If they all change simultaneously at 8:00 AM then at what time they will again change simultaneously.

Q5) A sweetseller has 420 kaju burfis and 150 badam burfis. He wants to stack them in such a way that each stack has the same number, and they take up the least area of the tray. How many of these can be placed in each stack? How many stacks are formed?

Q6) Show that  $12^n$  can never end with the digit zero or five for any natural number  $n$ .

Q7) If  $p$  and  $q$  are primes positive integers, prove that  $\sqrt{p} + \sqrt{q}$  is an irrational number.

Q8) Show that there is no positive integer  $n$  for which  $\sqrt{n-1} + \sqrt{n+1}$  is rational.

Q9) If two positive integers  $m$  and  $n$  are expressible in the form  $m = a^2b^3$  and  $n = a^3b^2$ , where  $a, b$  are prime numbers, then  $\text{HCF}(m, n) = \underline{\hspace{2cm}}$  and  $\text{LCM}(a, b) = \underline{\hspace{2cm}}$

## ASSIGNMENT 2 : POLYNOMIALS

Q1) Find the zeroes of the given quadratic polynomial and verify the relationship between the zeroes and the their coefficient.

i)  $h(x) = a(x^2 + 1) - x(a^2 + 1)$

ii)  $F(x) = x^2 - 11x/6 - 5/3$

iii)  $g(x) = v^2 + 4\sqrt{3}v - 15$

Q2) If  $m$  and  $n$  are the zeroes of the quadratic polynomial  $f(x) = 3x^2 - 4x + 1$ , find a quadratic polynomial whose zeroes are

i)  $m^2/n^2$  and  $n^2/m^2$

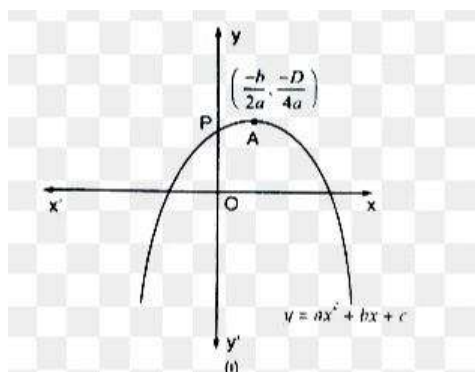
ii)  $2m/n$  and  $2n/m$

iii)  $2m + 3n$  and  $3m + 2n$

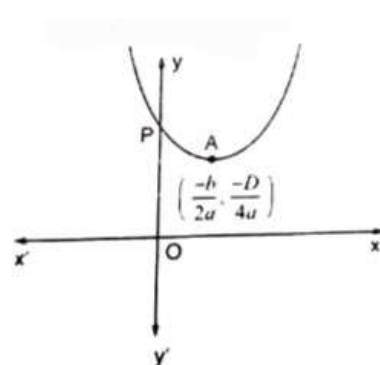
iv)  $2m + 1$  and  $2n + 1$

Q3) The graph of  $y = ax^2 + bx + c$  are given. Identify the signs of  $a, b$  and  $c$  in both the graphs. Write the zeroes as well.

i)



ii)



Q4) find a quadratic polynomial whose zeros are reciprocal of the zeros of the polynomial  $f(x) = ax^2 + bx + c$ ,  $a \neq 0$ ,  $c \neq 0$

### ASSIGNMENT 3: **PAIR OF LINEAR EQUATION IN TWO VARIABLE**

Q1) Akhila went to a fair in her village. She wanted to enjoy rides on the Giant Wheel and Hoopla (a game in which you throw a ring on the items kept in the stall, and if the ring covers the object completely you get it). The number of times she played Hoopla is half the number of rides she had on the Giant Wheel. Each ride costs ₹3, and a game of Hoopla costs ₹4. If she spent 20 in the fair, represent this situation algebraically and graphically.

Q2) Draw the graphs of the equations  $2x + y = 2$  and  $2x + y = 6$  on the same graph paper. Find the coordinates of the vertices of the trapezium formed by these lines. Also, find the area of the trapezium so formed.

Q3) A and B each have a certain number of oranges. A says to B "if you give me 10 of your oranges I will have twice the number of oranges left with you" B replies "if you give me 10 of your oranges I will have the same number of oranges as left with you" find the number of oranges with A and B separately.

Q4) I am three times as old as my son. Five years later I shall be two and a half times as old as my son. How old am I and how old is my son?

2-Make a project on "Polynomials".

**The project must contain the following:**

1. Definition of Polynomial
2. Classifying them by degree, understanding the relationship between zeros and coefficients,
3. Visualizing polynomial graphs

### **SOCIAL SCIENCE**

To prepare any one Project Report on

Any one of these TOPICS:- 1-Social Issues (Civics)

2-Consumer Awareness (Eco)

3- Sustainable Development. (Geo)

PARTICIPANTS - Whole Class (Individual Project).

JUDGEMENT CRITERION:

S.NO	ASPECTS	MARKS
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1 Content accuracy, originality & analysis- 2 marks

2 Presentation & creativity -2 marks

3 Viva voce- 1 mark

TOTAL-- 5marks

LANGUAGE - English

TIME - Summer Break

MODE OF PRESENTATION- Handwritten

## OBJECTIVES

GENERAL Objectives –Students will be able to:

1-Gain an insight and pragmatic understanding of the theme and see all the social science disciplines from an interdisciplinary perspective.

2-Enhance life skills.

3- Apply the concepts of social science learnt over years.

Specific Objectives

### A) SUSTAINABLE DEVELOPMENT

1-To familiarize students with the concept of Sustainable Development.

2-To create awareness among students regarding the misuse of limited resources & dire need to conserve resources.

### B) SOCIAL ISSUES-

1. To identify and understand prevalent social issues such as poverty, gender inequality, child labor, substance abuse, or unemployment in the local or national context.

2. To analyse the causes and consequences of these social issues on individuals, communities, and society at large.

### C)-CONSUMER AWARENESS

1-To familiarize students with the rights & duties as a consumer.

2-To create awareness among students about the legal measures available to protect from being exploited in the market.

SUBMISSION - Second week after reopening of the school.

NOTE - Project should be made from eco-friendly products without incurring too much expenditure.

## **Chemistry**

- 1) On an A-4 size sheet write 20 balanced chemical equations.
- 2) On an A-4 size sheet make a flow chart on types of chemical reactions.
- 3) On an A-4 sheet write about indicators and types of indicators.

## **PHYSICS-**

- 1- Practice image formation by concave mirror and convex mirror
- 2- Solve 20 numerical based on concave mirror.
- 3- Solve 20 numerical based on convex mirror.

Make a separate Notebook for Physics Holiday Homework

## **BIOLOGY**

Chapters: Life Processes (till Circulatory System)

### 1. Theory Work – To Learn & Revise

Topics to Prepare for PT1:

What are Life Processes?

Nutrition in plants and animals

Respiration – Aerobic and Anaerobic

Transportation in human beings (Circulatory System)

Structure and function of heart

Blood vessels: arteries, veins, capillaries

Blood and its components

Double circulation

Lymphatic system

Tasks:

Make a detailed summary notebook with:

Key definitions

Labelled diagrams

Flowcharts (e.g., flow of blood through heart)

Functions of organs/systems

### 2. Practical Record Book – To Complete

List of Experiments (as per CBSE guidelines):

Experiment: To prepare a temporary mount of a leaf peel to show stomata

Draw labelled diagram

Write observation and conclusion

Experiment: To show that carbon dioxide is given out during respiration

Write procedure, observation, and inference

Experiment: To show that light is necessary for photosynthesis

Record complete experiment in practical file

Instructions:

Paste/Draw neat diagrams wherever applicable

Ensure proper formatting: Aim, Materials, Procedure, Observation, Conclusion

### 3. Project Work – For Portfolio

Topic (Choose ONE):

“Nutrition in Humans vs. Plants – A Comparative Study”

“Journey of a Drop of Blood – Understanding the Human Circulatory System”

“Effect of Lifestyle on Respiration and Circulation”

Guidelines:

Project should be handwritten on A4 sheets or a scrapbook

Include:

Introduction

Objective

Explanation with diagrams

Real-life examples or case studies

Conclusion

Bibliography

Creativity (use-coloured diagrams/charts/infographics)

Max length: 6–8 pages

Submission Date: First day after summer vacation

Assessment Criteria:

Timely submission

Neatness and organization

Scientific accuracy

Creativity in project work

Completeness of record booked

 Assertion-Reasoning Questions, do it in your note book

Q1.Assertion (A): Arteries carry blood away from the heart.

Reason (R): All arteries carry oxygenated blood.

Answer:

A is true, R is false. (Pulmonary artery carries deoxygenated blood)

Q2. Assertion (A): Photosynthesis occurs only during the daytime.

Reason (R): Light is necessary for the process.

Answer: Both A and R are true, and R is the correct explanation of A.

Q3. Assertion (A): Stomata are present only on the lower surface of dicot leaves.

Reason (R): This minimizes water loss due to transpiration.

Answer: Both A and R are true, and R is the correct explanation of A.

Q4.Assertion (A): Respiration is a physical process.

Reason (R): It involves release of energy from food.

Answer: A is false, R is true.

## विषय- हिंदी

**सूचना – 1) दिया गया कार्य अपनी हिन्दी की नोटबुक में किजिए।**

**2) परियोजना कार्य A4 साइज़ शीट में किजिए।**

1. निम्नलिखित विषयों पर लगभग 100 शब्दों में अनुच्छेद लिखिए —

- i) विकलांगता नहीं है अभिशाप
- ii) दिल्ली के दर्शनीय स्थल
- iii) ग्लोबल वार्मिंग – विश्व की चिंता का विषय
- iv) इंटरनेट – आधुनिक कल्पवृक्ष

2. निम्नलिखित विषयों पर लगभग 25 से 30 शब्दों में विज्ञापन तैयार कीजिए —

- i) बिस्किट का विज्ञापन।
- ii) स्वच्छता के प्रचार-प्रसार के लिए जनहितकारी विज्ञापन, दिल्ली सरकार की ओर से।
- iii) एक बार प्रयोग में लाए जाने वाले प्लास्टिक उत्पादों के प्रति आम लोगों में जागरूकता लाने के लिए।
- iv) आपकी दीदी ने संगीत कला केंद्र खोला है। इसके प्रचार-प्रसार के लिए विज्ञापन तैयार कीजिए करें।

3. निम्नलिखित विषयों पर पत्र लिखिए —

- i) विद्यालय में खेलकूद की सामग्री की कमी की ओर ध्यान दिलाते हुए प्रधानाचार्य को पत्र लिखिए।
- ii) अपने नगर विकास प्राधिकरण के सचिव को अपनी कॉलोनी के विकास के लिए पत्र लिखें।

4. वाचन कौशल — समय 1 से 1½ मिनट । निम्नलिखित विषयों पर याद करें ।

- i) समय की बर्बादी - जीवन की बर्बादी
- ii) मनुष्य की पहचान - वेशभूषा या व्यवहार
- iii) अपने क्षेत्र के चौराहे पर मूर्ति लगाने के उद्देश्य

5. अंडमान और निकोबार विषय पर एक चित्रात्मक परियोजना कार्य तैयार कीजिए जिसमें वहाँ के प्रमुख दर्शनीय स्थल, जलवायु, खानपान और मुख्य जानकारी दीजिए। अधिक से अधिक चित्रों का प्रयोग करें।

6. प्रथम इकाई परीक्षा सम्पूर्ण पाठ्यक्रम याद कीजिए।

## **II**

### **PART-A**

#### **Chapter-1 Communication Skills**

##### **1. Concept-Based Questions**

- What are communication skills? Why are they important?
- What is the difference between verbal and non-verbal communication?
- Define active listening. Why is it important?
- What are the barriers to effective communication?
- What is the role of body language in communication?



## **2. Short Answer Questions**

- Mention two examples of non-verbal communication.
- What is feedback in communication?
- Write two qualities of a good communicator.
- Name any two types of communication.

## **3. Situational/Practical Questions**

- Imagine you are in a group discussion. How would you ensure effective communication?
- How would you handle a situation where someone misunderstands your message?
- You are giving a presentation in class. What communication skills would help you the most?

## **4. Higher-Order Thinking Questions**

- How do communication skills affect professional success?
- In what ways can poor communication impact relationships?
- Can communication skills be learned or are they innate? Discuss.

## **Chapter-2 Self-Management Skills**

### **◆ 1. Concept-Based Questions**

- What are self-management skills? Why are they important?
- Define self-motivation. How does it help in achieving goals?
- What is time management? Why is it essential for students?
- What is the importance of self-confidence in self-management?

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### **◆ 2. Short Answer Questions**

- Name any two self-management skills.
- Write two benefits of good time management.
- Mention two ways to improve self-confidence.
- What do you understand by the term 'goal setting'?

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### **◆ 3. Practical/Situation-Based Questions**

- You have exams coming up and a lot of syllabus to cover. How will you manage your time effectively?
  - How would you stay motivated while preparing for a long-term project?
  - You failed to meet a deadline. What would you do differently next time using self-management skills?
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#### ◆ 4. Value-Based / Higher Order Thinking Questions

- How do self-management skills contribute to a person's overall success?
  - Discuss how poor self-management can affect your academic performance.
  - Do you think self-management skills are more important than technical skills? Give reasons.
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### **PART-B**

#### **UNIT-1 Digital Documentation**

##### ◆ 1. Concept-Based Questions

- What is digital documentation? Give two examples of software used for it.
  - What is the difference between a text editor and a word processor?
  - Define the term “template” in a word processor.
  - What is the use of styles in digital documents?
  - What are headers and footers?
- 

##### ◆ 2. Short Answer Questions

- Name two word processing software.
  - What is the shortcut key for making text bold in a word processor?
  - What is the use of the “Find and Replace” feature?
  - Write two advantages of using templates.
  - What do you understand by mail merge?
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##### ◆ 3. Application-Based Questions

- How can you insert a table in a digital document?

- Explain the steps to create and apply a style.
  - Describe the steps to perform mail merge using a word processor.
  - How would you protect your digital document with a password?
  - Write the steps to insert a page number and header in a document.
- 

#### ◆ 4. Higher-Order Thinking Questions

- Why is formatting important in a digital document?
- How does mail merge help in saving time?
- What are the benefits of using styles for long documents like reports or books?

\*Do all these questions in your I.T notebook.

#### **Project-Based Questions**

##### **1. Create a Resume:**

- Design a professional resume using a word processor (e.g., MS Word, LibreOffice Writer) including:
  - Personal information
  - Educational qualifications
  - Skills and hobbies
  - Proper formatting with headers, bullet points, and styles

##### **2. Design a School Newsletter:**

- Create a 2-page school newsletter using digital documentation tools.
  - Include articles, announcements, images, page numbers, and header/footer
  - Apply consistent styles and use columns

##### **3. Mail Merge Activity:**

- Prepare an invitation letter template for a school event.
- Use mail merge to send personalized invitations to at least 10 recipients using a data table with names and addresses.

##### **4. Create a User Manual:**

- Design a short user manual for using any software (like a browser, or MS Word).

- Use headings, bullet points, tables, and images/screenshots
- Add table of contents using styles

#### 5. **Create a Report:**

- Write a report on “Importance of IT in Education” in a word processor.
  - Use headings, subheadings, bullet points, insert table and image
  - Format it properly using styles, insert header/footer, and save as PDF

#### 6. **Design a Certificate Template:**

- Create a certificate format for a school competition.
  - Use a border, placeholders (for name, event, date), and apply styles and formatting

## **ENGLISH-**

Read any two chapters from First Flight and one story from Footprints Without Feet.

1-Write: A summary in your own words.

2-Write a short story (150–200 words) with a moral.

3-Design a travel brochure for a place you visited/want to visit.

4-Write a diary entry on a memorable day during your holiday.

Record a 2-minute speech on topics like My Dream Career

Importance of Reading

Artificial Intelligence in Education

Watch any motivational or educational video (TED Talks or CBSE-recommended) and write:

Title of the video

Three things you learned

Read one English storybook/novel (e.g., The Diary of a Young Girl, Malgudi Days, or any age-appropriate novel).

Write a book review: Title, author

Main characters

Summary

Descriptive writing

10 new vocabulary words with meanings and use daily for about 15 days