**CLASS X B, A**

**SUMMER HOLIDAY HOMEWORK SESSION: 2026–27**

**ENGLISH**

1.Storyboard / Comic Strip

Convert a story into a comic strip (8–10 frames).

2.Add:

Dialogues in speech bubbles

Proper sequence of events

Focus on creativity and clarity

3.Interview Writing

Imagine you are interviewing a character (Lencho / Dr. Herriot / Mrs. Pumphrey).

4.Write a Q&A script (8–10 questions).

Add thoughtful answers based on the story.

Pet Care Poster (From "A Triumph of Surgery")

Design a poster on "Responsible Pet Ownership."

Include:

Do's and Don'ts

A slogan

Connect with Tricki's story.

**हिंदी**

**लिखित कार्य -**

**1.मैथिलीशरण गुप्त की कविता यशोधरा पर एक चित्रात्मक प्रोजेक्ट तैयार करें। ( मॉडल)**

**2. तीसरी कसम के फिल्म कलाकारों का चित्रांकन चार्ट पेपर पर करें।**

**3.पदबंध, समास, वाक्य, मुहावरे में से किसी एक विषय पर रचनात्मक मॉडल तैयार करें।**

4.पाठ्यपुस्तक या पूरक पाठ्यपुस्तक के किसी एक कवि पर पीपीटी प्रेजेंटेशन तैयार करें। (10 स्लाइड)

मौखिक कार्य-

साखी, बड़े भाई साहब, पदबंध तथा हरिहर का पाठ के प्रश्न उत्तर कंठस्थ करें।

## MATHEMATICS

### Instructions

Use a separate notebook. Show all steps. Maintain neatness. Attempt all questions.

### Section A: Practice Questions

1. Use Euclid's Division Algorithm to find HCF of 135 and 225.
2. Find HCF of 867 and 255 using Euclid's algorithm.
3. Check whether 6^n can end with digit 0 for any natural number n.
4. Express 0.375 as a rational number.
5. Find the LCM and HCF of 306 and 657.
6. Prove that $\sqrt{5}$ is irrational.
7. Find decimal expansion of 13/8.
8. Check whether 7/75 is terminating or non-terminating.
9. Express 0.142857 as a fraction.
10. Find HCF of 196 and 38220.
11. Prove that $\sqrt{2}$ is irrational.
12. Find LCM of 72 and 120.
13. Find HCF of 405 and 2520.
14. Find remainder when 251 is divided by 11.
15. Determine if 1/6 has terminating decimal expansion.
16. Find zeroes of polynomial: $x^2 - 5x + 6$.

17. Find zeroes of $2x^2 - 7x + 3$.

18. Verify relationship between zeroes and coefficients for $x^2 - 3x + 2$.

19. Find quadratic polynomial whose zeroes are 2 and $-3$.

20. Find remainder when $x^3 - 3x^2 + x + 2$ is divided by $(x - 1)$.

21. Check whether $(x + 2)$ is a factor of $x^3 + 2x^2 - x - 2$.

22. Find zeroes of cubic polynomial: $x^3 - 6x^2 + 11x - 6$.

23. Graph polynomial $y = x^2 - 4$.

24. Find number of zeroes of polynomial from graph.

25. Find polynomial with zeroes $\sqrt{2}$ and $-\sqrt{2}$.

26. Find sum and product of zeroes of $x^2 - 7x + 10$.

27. Find remainder when $2x^3 + 3x^2 - x + 5$ is divided by $(x + 1)$.

28. Factorise: $x^3 - 3x^2 - 4x + 12$.

29. Find zeroes of $3x^2 - 5x - 2$.

30. Check if $x - 1$ is factor of $x^3 - 1$.

31. Find quadratic polynomial whose sum of zeroes is 4 and product is 3.

32. Find value of k if $x + 1$ is a factor of $x^3 + kx^2 + x - 1$.

33. Factorise: $x^2 - 9$.

34. Find zeroes graphically of $y = x^2 - 1$.

35. Find polynomial with zeroes $1/2$ and 3.

36. Find solution of: $x + y = 5$.

37. Find two solutions of $2x + 3y = 12$.

38. Check whether $(2,3)$ is solution of $4x - y = 5$.

39. Draw graph of $x + y = 4$.

40. Find intercepts of $3x + 2y = 6$.

41. Solve graphically: $x - y = 1$ and $x + y = 5$.

42. Represent $2x - y = 4$ on graph.

43. Find solution of equation $5x + 3y = 15$.

44. Check if (1,2) satisfies equation $x + 2y = 5$.

45. Find x when $y = 2$ in equation $3x + y = 11$.

46. Find y when $x = 3$ in $2x + y = 7$.

47. Solve graphically: $2x + y = 5$ and $x - y = 1$.

48. Write equation of line passing through (0,3) and (3,0).

49. Find coordinates where graph cuts x-axis for $y = 2x - 4$.

50. Draw graph of $y = 3x$.

## Section B: Project Work (Any One)

1. Real Numbers in Daily Life
2. Polynomials and Graphs
3. Linear Equations in Real Life
4. History of Mathematics

## SCIENCE

1.Prepare one working model ( in group of 5)(As alotted )

2.Prepare one Art integrated project (paired state Uttar Pradesh – Arunachal Pradesh & Meghalaya)

3.Prepare chapter

**Chemical reactions and equations,**

**Life processes**

**Light reflection and refraction**

for periodic Test.

4. **Solve given numerical in the class work notebook.**

*1. Light travels from rarer medium 1 to denser medium 2. Angle of incidence & refraction are 45 & 30 resp.*

*(i) Calculate the refractive index of second medium with respect to the first.*

*(ii) Calculate the refractive index of the first medium with respect to the second.*

2. Find the position, nature and size of the image of an object 3 cm high placed at a distance of 9 cm from a concave mirror of focal length 18 cm.

(v = 18 cm, h = 6 cm)

3. An object 4 cm high is placed 40 cm in from of a concave mirror of focal length 20 cm. find the distance from the mirror, at which a screen be placed to obtain a sharp image.

(v= - 40cm)

4. A convex lens has focal length of 30 cm. at what distance should object be placed from the lens so that it forms an image at 60 cm on other side of the lens? Find the magnification

produced by the lens. ( v=- 60cm, m = -1)

5. An arrow 2.5cm high is placed at a distance of 25 cm from a diverging mirror of focal length 20 cm. find the nature, position and size of the image formed

(11.1, 1.11cm).

6. The image formed by a convex mirror of focal length 30 cm is a quarter of the object, what is the distance of object from the mirror?

( -90 cm)

7. An erect image 3 times the size of the object is obtained with a concave mirror of radius of curvature 36 cm. calculate the position of the object.

(-12cm)

8. A concave lens has focal length of 15 cm. at what distance should an object be placed from the lens so that if forms an image at 10 cm from the lens? Find the magnification of the lens.

(-30cm, 1/3)

9. A 2 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 10 cm. the distance of the object from the lens is 15 cm. find the nature, position and size of the image. (30cm, -4cm)

10. The image obtained with a convex lens is erect and its length is 4 times the length of the object. If the focal length of the lens is 20 cm, calculate the object and image distance.

(-15 cm, - 60cm)

*11. A concave lens of focal length 25 cm and a convex lens of focal length 20 cm are placed in contact with each other. What is the power of this combination? What is the focal length of*

*the combination? (1D, 1m)*

*12. Find the focal length and nature of lens which should be placed in contact with a lens of focal length 10 cm so that the power of the combination becomes 5 dioptre.*

*(-20cm, concave)*

5.Complete all the notes.

**SOCIAL SCIENCE**

1. Learn all the 1st chapters of History, Civics, Geography and Economics for P.T. 1
2. Read and prepare notes of the chapter Rise of Nationalism in Europe.
3. Prepare a chart on any one topic.
    a. Social Issues
    b. Sustainable Development
    c. Consumer Rights
4. Make a model on any one topic of History /Civics.

**Subject: IT (402)**

**General Instructions:**

- **All works done neatly in a separate file.**
- **Maintain proper headings and presentation.**
- **Submit all works in transparent file.**

1. What is communication?
2. What are the types of communication? (Verbal & Non-verbal)
3. Write any 5 barriers to effective communication.
4. Make a PPT on 7C's rules of communication.

**(B) Activity:**

- Write a **short note (8–10 lines ) in** *"Use of AI in education"*

10 A – MR. AMIT KUMAR –

10 B – MS. POONAM TRIPATHI –