

Sub → Sanskrit

दशमी कक्षा:-

1. समास के नियम याद करें एवं प्रत्येक से दो-दो उदाहरण लिखें।
2. सन्धि के नियम और प्रत्येक से दो-दो उदाहरण याद करें।
3. समयलेखन की पुनरावृत्ति करें।
4. पाठ: 1 के श्लोक अन्वय सहित लिखें (CW)

# Holiday Homework (Summer Vacation)

## Mathematics

### Class X

1. Prove that  $2\sqrt{3} + \sqrt{5}$  is an irrational number.
2. Three bells toll at intervals of 12 minutes, 15 minutes, and 18 minutes respectively. If they start tolling together at 7:00 am, at what time will they toll together next?
3. Write the quadratic polynomial whose one zero is  $3 - \sqrt{5}$  and product of zeroes is 4.
4. Find the zeroes of the quadratic polynomial  $24x^2 - 65x + 21$  and verify the relation between zeroes and coefficients.

5. Draw the graph of equations  $2x + y = 6$  and  $2x - y + 2 = 0$ . Shade the region bounded by these lines and the x-axis. Find the area of the shaded region.
6. The sum of a two-digit number and the number obtained by reversing the order of the digits is 121. If the digits differ by 3, find the number.
7. 37 chocolates and 53 toffees together cost ₹ 320, while 53 chocolates and 37 toffees together cost ₹ 400. Find the cost of a chocolate and that of a toffee.

8. An aeroplane left 30 minutes later than its scheduled time and in order to reach a destination 1500 km away in time, it has to increase its speed by 250 km/hr from its usual speed. Find its usual speed.

9. If  $\frac{a}{b} = \frac{c}{d}$ , then prove that the roots of the equation  $(a^2 + b^2)x^2 - 2(ac + bd)x + (c^2 + d^2) = 0$  are equal.

10. Solve for  $x$ :

$$\frac{1}{2a + b + x} = \frac{1}{2a} + \frac{1}{b} + \frac{1}{x}, \text{ where}$$

$$a \neq 0, b \neq 0, x \neq 0.$$

11. If  $\alpha$  and  $\beta$  are zeroes of the quadratic polynomial  $2x^2 + 5x + k$ , find the value of  $k$  if  $(\alpha + \beta)^2 - \alpha\beta = 24$ .

कक्षा -दसवीं  
विषय -हिंदी  
ग्रीष्मकालीन गृहकार्य

- 1- फेरी वाले हमारे दिन - प्रतिदिन की बहुत सी जरूरतों को आसान बना देते हैं। किसी दो फेरीवाले का चित्र गृहकार्य कॉपी में चिपकाएं और उसके योगदान एवं उसकी समस्याओं पर एक सुंदर लेख लिखें।।
- 2- गांव की विभिन्न प्रकार की तस्वीर को गृहकार्य कॉपी में चिपकाएं और गांव की सामाजिक व सांस्कृतिक परिवेश के बारे में लिखें।
- 3-वाच्य की परिभाषा एवं उसके भेद लिखें तथा प्रत्येक भेद के पांच पांच उदाहरण भी लिखें।
- 4- किसी एक ऋतु पर सचित्र कविता लिखें।

# Summer Holidays homework

Class-10

History

- 1.Explain in brief the reason behind emergence of Nationalism in Europe.
- 2.What is Liberalism? Explain its two types by relevant examples.

Geography

- 1.What are the major causes of land degradation? Explain measures of conservation.
- 2.Resource planning needs proper management of resources at every level. Explain.
- 3.On physical map of India show different types of soil found in India.

Civics

- 1.Compare power sharing in Belgium and Sri Lanka. What lessons do you learn from it.
- 2.Do you think power sharing is always desirable. Explain with arguments.

Economy

- 1.“Development shows diversity in concept.” Explain the statement.
- 2.What are the limitations of average income?

Summer Holiday Home-work  
Class 10 : English.

- 1: How does the frog manipulate the nightingale psychologically, and what techniques does he use to establish control over her?
- 2: Analyse the frog as a symbol of authority and exploitation. What does he represent in real life?
- 3: How does the poet use irony in the poem to highlight the contrast between the frog and the nightingale?
- 4: How does the character of Loona Bimberton act as a catalyst in the story? Analyse her role in driving Mrs Packetide's decisions.
- 5: Examine the theme of deception in the story. How do different characters use deceit, and what are the consequences of their actions?
- 6: How do Nicola and Jacopo redefine the idea of "gentlemen" in the story? Support your answer with examples.
- 7: Analyse the role of the narrator in shaping our understanding of the boys' character and their hidden struggles.
- 8: The story highlights the impact of war on children. Discuss how this theme is developed through the lives of Nicola and Jacopo.

# M.K. DAV PUBLIC SCHOOL, DALTONGANJ

Summer vacation

HHW

(2026-2027)

CLASS: X

SUBJECT: SCIENCE

## Section-Biology

1. Complete practical file (Lab Manual) with all practical of 1<sup>st</sup> term.
2. Write function of the following  
(a) HCL (b) pepsin (c) bile juice (d) Trypsin (e) salivary amylase (f) Lipase
3. Draw diagram of pathways of breaking down of glucose.
4. Differentiate between  
(a) Breathing & Respiration (b) Aerobic & Anaerobia respiration
5. What is Velli? how are the designed to absorb digested food?

## Section-Chemistry

6. Differentiate between displacement & double displacement reaction, give one example of each
7. What happens when copper metal reacts with silver nitrate solution. Write the balanced chemical equation. Also name the type of reaction.
8. A shiny brown metal 'X' reacts with oxygen to form a black colour compound  
(i) identify the metal 'X' and black colour compound  
(ii) write the balanced chemical equation  
(iii) how metal 'X' can be obtained back? Write the chemical equation.
9.  $Zn + C \rightarrow Zn + Co$   
(i) name the substance oxidised & reduced.  
(ii) name the oxidising agent & reducing agent in the above reaction.
10. Complete practical file (Lab Manual) with all practical of 1<sup>st</sup> term.

## Section-Physics

11. (i) draw the ray diagram for image formation in case of plane mirror.  
(ii) give characteristics of image formed by a plane mirror
12. (i) differentiate real and virtual images.  
(ii) A boy runs at a speed of  $2 \text{ ms}^{-1}$  towards a plane mirror. What will be the speed & direction of image  
(iii) angle between incident ray & reflected ray from a plane mirror is  $60^\circ$ . find the angle at which the incident ray strikes the mirror.
13. Define the following term in case of spherical mirror with clear diagram  
(i) Pole (ii) centre of curvature (iii) radius of curvature (iv) principal focus (v) principal focus (vi) focal length
14. A student wants to project the image of a candle flame on the walls of the school laboratory by using a mirror.  
(i) which type of mirror should he use and why?  
(ii) draw a ray diagram to show the formation of image in this case.  
(iii) At what distance, in terms of focal length f of the mirror, should he place the candle flame to get the magnified image on the wall?
15. Complete practical file (Lab Manual) with all practical of 1<sup>st</sup> term.

## Instructions:

- 1 Answer all questions neatly.
- 2 Use diagrams wherever required.
- 3 Project work must be in a separate file.

## Chapter 1: Communication Skills

### Section A: Very Short Answer

- 1 Define communication.
- 2 What is feedback?
- 3 Give examples of non-verbal communication.
- 4 What is formal communication?

### Section B: Short Answer

- 1 Explain types of communication.
- 2 What are communication barriers?
- 3 Differentiate verbal and non-verbal communication.

### Section C: Long Answer

- 1 Explain communication cycle with diagram.
  - 2 Describe methods of communication.
- Activity: Write a speech on Effective Communication for Success.

## Chapter 2: Self-Management Skills

### Section A: Very Short Answer

- 1 What is self-management?
- 2 Define self-motivation.
- 3 What is stress?

### Section B: Short Answer

- 1 Importance of self-awareness.
- 2 Causes of stress.
- 3 Time management techniques.

### Section C: Long Answer

- 1 Ways to improve self-confidence.
  - 2 Stress management techniques.
- Activity: Prepare a weekly timetable.

## Chapter 3: ICT Skills

### Section A: Very Short Answer

- 1 What is ICT?
- 2 What is OS?
- 3 Name input and output devices.

### Section B: Short Answer

- 1 Hardware vs software.
- 2 Types of memory.
- 3 Functions of OS.

### Section C: Long Answer

- 1 Role of ICT in modern society.
  - 2 Components of computer system.
- Activity: Draw labelled computer diagram.

## Project Work

Topic: Role of ICT in Education (5–7 pages).

Subject Teacher \_\_\_\_\_

Principal \_\_\_\_\_