

# D.V.S. Public School

## Holiday Home Work

### Class-IX

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### हिन्दी

क्षितिज: गद्य खण्ड: पाठ-1 और पाठ-2

काव्य खण्ड: पाठ-2

कृतिका: पाठ-1

व्याकरण: पाठ-1

पत्र: औपचारिक पत्र (3), अनौपचारिक पत्र (2)

उपर्युक्त सभी विषयों को लिखना व याद करना है

परियोजना कार्य: महान कहानीकार मुंशी प्रेमचन्द का जीवन परिचय भाषा-शैली व उनकी तीन प्रसिद्ध कहानियाँ लिखकर एक सुंदर फाईल तैयार कीजिए। चित्र सहित।

जल ही जीवन है, विषय पर एक पोस्ट तैयार कीजिए।  
निम्नलिखित विषयों पर निबंध लिखें

1. आधुनिक समय में हिन्दी का स्थान
2. जनसंख्या विस्फोट: एक समस्या
3. सादा जीवन उच्च विचार
4. कोरोना महामारी..... ग्रीष्मावकाश गृह कार्य कॉपी में

### Social Science (Extra Question)

1. Give the latitudinal and longitudinal extent of: a) India b) Andhra Pradesh
2. What is the total length of India's land boundaries? what is the length of India's coast line ?
3. Why India is called a peninsula.
4. Name the Indian State Forming land frontiers with:  
i) Pakistan ii) Bangladesh iii) China iv) Bhutan v) Nepal
5. What is subcontinent?  
Name the countries Forming the Indian Subcontinent.
6. Name the states/Union Territories of India which neither form the coast line nor the land frontiers.
7. Why do we need a standard meridian for India? Explain.

8. Name all the neighbours of India.
9. Why 82°30' E has been selected as the standard Meridian of India?
10. In a political map of India mark and label the following:  
India States with capital, Tropic of Cancer, standard meridian, southernmost, northernmost and westernmost point of India (Location and Labeling)
11. State the 'Theory of plate tectonics'
12. Explain the following terms: a) Folding b) Faulting c) Volcanic Activity
13. What do you know about the Gondwana land?
14. Name the oldest land mass of India which types of rocks are found there.
15. Name six Major physiographic divisions of India.
16. Describe the Latitudinal division of the Himalayas?
17. Which three river systems form the northern plains?
18. Why the northern plains are called the Depositional plains.
19. How are the riverine islands formed? Which is the largest riverine island in India?
20. What are Distributaries.

### **Social Science**

History: Read and make notes of Question answers of chap-1

Geo: Read and Make notes of Question answers of chap-1

Eco.: Read and Make notes of Question answers of chap-1

D.P.: Read and Make notes of Question answers of chap-1

Project: Prepare a file about 10 countries & Currency  
How to Manage world bank.

### **English**

1. Movement : Read, learn & write Question answers of chap-1&2
2. Behave : Read, learn & write Question answers of chap-1 & 2
3. Grammar: write Articles and stories in your copy.
4. Project: prepare a file about history of 10 poets.
5. Make a pocket dictionary and write and learn words daily  
(Words can be taken From Newspaper)

# Maths

Revise: Chap-1 (Number Systems)

Chap-3 (Co-ordinate Geometry)

Chap-4 (Linear Equations in one Variable)

Chap-12 (Heron's Formulas) with Examples.

Project: Write square and square root on chart paper.

Make a working model on types of numbers.

1. Identify  $\sqrt{45}$  as a rational or irrational Numbers.

2. Simplify (i)  $\frac{3a^7b^6}{18a^6b^8}$  (ii)  $\left(\frac{-2a^3}{b^3}\right)^3$

3. Simplify  $(\sqrt{13}-\sqrt{17})(\sqrt{13}+\sqrt{17})$

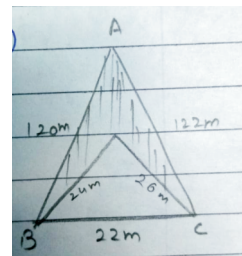
4. Rationatise  $\frac{1}{3+\sqrt{3}}$

5. Three Vertices of rectangle are (3,2) (-4,2) and (-4,5) plot these points on a graph paper and find the coordinates of the forth vertex.

6. In which of the four quadrants or on which axis following points lie?

(2,0), (4,-1), (-3, -6), (-3, 5)

7. Calculate the area of shaded region.



8. Find the area of trapezium whose parallel

sides are 25 cm. 13 cm. and other sides are 15 cm and 15 cm.

9. The sides of a triangular plot are in ratio 3:5:7 and its perimeter is 300m find its area.

10. i) Draw the graph of line  $4x + 3y = 24$

ii) Write the co-ordinates of point where this line intersects x-axis and y-axis.

iii) use this graph to find the area of the triangle formed by line and Co-ordinates area

### **PROBLEMS FOR PRACTICE**

1. 15g of common salt are dissolved in water. the solution was found to weight 115 g. calculate the mass by mass percentage of common salt in the solution.
2. A solution is prepared by dissolving 5 g or urea in 95 g of water. that is the mass by mass percentage urea in the solution?
3. Calculate the masses of cane sugar and water required to prepare 200g of 15% mass by mass solution of cane sugar in water.
4. It is desired to prepare 500 g of 10% mass by mass percentage of urea in water. How much urea should be dissolved in how much volume of water? Density of water is  $1\text{g mL}^{-1}$
5. 15 mL of ethyl alcohol is mixed with 60 mL of Gasoline. Calculate the volume by volume percentage of the solution.
6. what volume of alcohol and what volume of water must be mixed together to prepare 250 mL of 60% volume by volume solution of alcohol in water.
7. 3g of a solute are dissolved in 30 g of water to form a saturated solution at 298 K. calculate the solubility of the solute at this temperature.
8. a) What mass of potassium Chloride would be needed to from a saturated solution in 50g of water at 313 K.? Given the solubility of the Salt = 40 g/100 g of water at this temperature.  
b) What will happen if the solution at this temperature is cooled ?
9. Calculated the percentage composition in terms of mass of a solution obtained by mixing 300 g of 25% and 400 g of a 40 % solution by mass.
10. Calculate the mass of sulphuric acid present in 100 mL of 15% mass by mass Solution of Sulphuric acid.
11. How many litres of a 5.0 (w/v) glucose solution would you take to obtain 75 g glucose.

- 12. what is meant by pure substance?**
- 13. Suggest separating techniques one would need to employ to separate the following mixtures.**  
(a). Mercury and water (b) Potassium chloride and ammonium chloride  
(c). Common salt, water & sand (d) Kerosene oil, water and salt.
- 14. Salt can be recovered from its solution by evaporation. suggest some other technique for the same.**
- 15. While diluting a solution of salt in water a student by mistake added acetone? Justify your choice/**
- 16. What would you Observe when:-**  
a) a saturated solution of potassium chloride prepared at 60° c is allowed to cool at room temperature.  
b) An aqueous sugar solution is heated to dryness .  
c) A mixture of iron filings& sulphur powder is heated strongly.
- 17. Explain why particles of a colloidal don't settle down when left undisturbed while in case of suspension they do.**
- 18 Name the Process associated with the following :**  
a) Dry ice is kept at room temperature at one atmospheric pressure.  
b) A drop of ink is placed on surface of water in glass which spreads in water.  
c) An acetone bottle left open becomes empty.  
d) Beam of light entering through a small hole in a dark room, illuminates the particles in its paths.
- 19. Give an example each for the mixture having following characteristics . Suggest suitable method to separate the components.**  
a) A volatile and non-volatile component.  
b) Two volatile components with appreciable difference in boiling points.  
c) Two immiscible liquids.  
d) one of the components changes directly from solid to gaseous state.

20. Give some example of Tyndall effect.
21. How can a saturated solution be made unsaturated.
22. Give reason to support that water is a compound and not mixture.
23. How will you separate a mixture of common salt, sulphur powder and sand?
24. How will you separate mixture of sugar and salt.

### **Biology Holiday Homework**

1. Make a well labeled diagram on various cells of human body.
- or
2. Make a well labeled diagram of plant cell or animal cell using thermocol & cardboard

### **Physics Holiday Homework**

- Q1 Suppose you walk across a room of length 9 m with a velocity of one and half km per hour . express this velocity in m/s and find the time you will take to move across the room.
- Q2. A car travels 30 km at a uniform speed of 40 km/h and next 30 km at a uniform speed of 20 km/h. find the average speed .
- Q3. A train travels at 60 km/h for 0.52 h; at 30km/h for next 0.24 h and at 70 km/ h for next 0.71 h. What is average speed of train?
- Q4. On a 120 km track, train travels first 20 km at uniform speed of 30 km/h. How fast the train travels for next 90 km so as to average 60km/h for the entire trip?
- Q5. A scooter acquires a velocity of 36km/h in 10 sec just after the start . It takes 20 sec to stop . Calculate the acceleration in the two cases.
- Q6. An electric train is moving with velocity of 120 km/h. How much distance will it move in 30 s?
- Q6. A body is moving with velocity of 15 m/s. If the motion is uniform what is velocity after 10 s

- Q7. A train travels some distance at the speed of 30 km/h and return with speed of 45 km/h. Calculate average speed of train.**
- Q8. A train 100 m long moving on a straight level track passes a pole in 5 seconds. Find (a) speed of train (b) the time it will take to cross a bridge 500 m long.**
- Q9. A car travels along a straight line for the first half time with the speed 40 km/h and second half time with a speed 60 km/h. Find the average speed of car .**
- Q10. A car increases its speed from 20 km/h to 50 km/h in 10 seconds. What is acceleration?**
- Q11. A moving train is brought to rest in 20 seconds by applying brakes. Find the initial velocity if, if retardation due to break is  $12 \text{ m/s}^2$  .**
- Q12. An object undergoes an acceleration of  $8 \text{ m/s}^2$  starting from rest. Find the distance travelled in 1s?**
- Q13. A body is accelerating at a constant rate of  $10 \text{ m/s}^2$  . If the body starts from rest, how much distance will it cover in 2 seconds ?**
- Q14. A car acquires a velocity of 72 km/h in 10 s starting from rest . Find acceleration, average velocity and the distance travelled in this time.**
- Q15. A body is accelerating at a constant rate of  $10 \text{ m/s}^2$  . If body starts from rest how much distance will it cover in 2 seconds ?**
- Q16. A car acquires a velocity of 72 km/h in 10 seconds starting from rest. Find (a) acceleration (b) the average velocity (c) the distance travelled in this time.**
- Q17. The brakes are applied to car produce an acceleration of  $6 \text{ m/s}^2$  in the opposite direction of motion . If the car takes 2 s to stop after application of brakes, calculate the distance it travels during this time .**
- Q18. A train starting from rest attains a velocity of 72 km/h in 5 min. Assuming that acceleration is uniform, find (a) the acceleration and (b) the distance travelled by the train for attaining this velocity .**
- Q19. A car accelerates uniformly from 18 km/h to 36 km/h in 5 seconds. Calculate (a) the acceleration (b) the distance covered by the car in that time**