

DAV HZL SR. SEC. SCHOOL, DARIBA
CLASS-IX
SUMMER VACATION HOLIDAY HOME WORK

ENGLISH

1. Fill in the blanks and complete the story:

_____ and _____ (name 1 and name 2) went shopping for _____ (plural noun) in the city. Everywhere they looked they saw _____ (adj) signs and _____ (adj) people. _____ (name 1) saw a man selling _____ (plural noun) from a cart and decided to buy one because _____ (name 2) was hungry. _____ (name 2) wanted to explore the _____ (plural noun) store. One store had a selection of _____ (plural noun) and _____ (adj) _____ (plural noun). A shop owner brought out a _____ (noun) that _____ (name 2) liked but _____ (name 1) said it looked too _____ (adj). At the next shop _____ (name 1) found a perfect _____ (clothing item 1) but noticed it was missing a _____ (noun). Meanwhile, a _____ (adj) _____ (clothing item 2) fit _____ (name 2) _____ (adverb)! After a long day of shopping they both rested their _____ (plural body part) near a _____ (adj) _____ (noun) by the busy side walk.

2. Read chapter Kingdom of fools from Moments and answer the given questions.

- How was the kingdom of fools different?
- What did the guru and his disciple notice about the kingdom of fools?
- Why didn't the disciple listen to his guru about leaving the kingdom?
- What complain did the thief's brother tell to the king?
- Why was the merchant called by the king?
- Why was the brick layer called by the king?
- Why was the dancing girl blamed?
- Why did the dancing girl blame the goldsmith?
- Who was the rich merchant whom the jeweller blamed?
- The merchant was convicted for the crime but later he was not executed on the stake. Explain.
- Why was the disciple chosen to be executed on the stake?
- How did the guru save his disciple? Explain.
- To enrich your vocabulary choose the difficult words from the chapter, write their meanings and frame sentences using the same.

3. Write a diary entry expressing your feelings about how you are going to miss your school and friends during the summer vacations. (Word limit 100)

MATHEMATICS

Worksheet on Number System

Note : Do solution in homework notebook.

1. A. Very Short Answer Type Questions:

- i. Which is the smallest natural number?
- ii. Which is the smallest whole number?
- iii. Which is the smallest positive integer?
- iv. Which is the greatest negative integer?
- v. How many natural numbers lies between 9 and 10?
- vi. How many rational numbers lies between 5 and 6?
- vii. How many irrational numbers lies between 1 and 2?
- viii. How many irrational numbers lies between $\sqrt{2}$ and $\sqrt{5}$?
- ix. Write all integers between -3 and 4.
- x. Is every real number an irrational number?

B. Classify the following is terminating or non-terminating repeating or non-terminating non-repeating decimals.

- | | | | |
|----------------------------------|---------------------------|------------------------------|------------------------|
| i) 4.256 | ii) $\frac{72}{130}$ | iii) $\frac{729}{2^3 5^2}$ | iv) $\frac{836}{7^3}$ |
| v) $\frac{18}{2^2 5^3 \times 3}$ | vi) $\frac{125}{7^4 2^2}$ | vii) $\frac{2187}{2^3 13^2}$ | viii) 4.090090009..... |
| ix) .484848..... | x) $\sqrt{123}$ | xi) $\sqrt{121}$ | xii) π |

C. Classify the following is rational or irrational number.

- | | | | |
|----------------------|-----------------------------------|-----------------------------------|----------------------------|
| i) 0 | ii) 2.4 | iii) 2.34 | iv) 5.252552555... |
| v) 7.99989898... | vi) $\frac{473}{129}$ | vii) 0.673 | viii) $\sqrt{7}$ |
| ix) $\sqrt{7} + 2$ | x) $(3 + \sqrt{11}) - \sqrt{11}$ | xi) $(7 + \sqrt{8})^2$ | xii) $\frac{2 - \pi}{130}$ |
| xiii) $(\sqrt{7})^2$ | xiv) $5\sqrt{73} \times \sqrt{2}$ | xiv) $4\sqrt{12} \times \sqrt{2}$ | |

2. A. Short Answer Type 1 Questions:-

- i. Insert 5 rational numbers between 0.7 and 0.8.
- ii. Insert 3 rational numbers between 9 and 10.
- iii. Insert 6 rational numbers between -1 and 1.
- iv. Insert 7 rational numbers between $\frac{2}{3}$ and $\frac{7}{9}$.

- v. Insert 9 rational numbers between $2\frac{3}{4}$ and 3.
- vi. Insert 6 rational numbers between $\frac{-7}{6}$ and $\frac{7}{9}$.
- vii. Insert 3 rational numbers between 1 and $\sqrt{2}$
- viii. Insert 3 irrational numbers between $\frac{5}{11}$ and $\frac{7}{9}$.
- ix. Insert 4 irrational numbers between $\sqrt{5}$ and $\sqrt{6}$
- x. Insert 2 irrational numbers between $\sqrt{5.1}$ and $\sqrt{5.5}$

3. Short Answer Type II Questions

A. Convert into p/q from repeating non-terminating decimals of the following.

- i) 4.023 ii) 7.23 iii) 5.0234 iv) 15.56787878.....

4. Simplify of the following:

- a) $2.34 + 4.3$ b) $1.2 + 0.7 - 2$ c) $\overline{0.4} - \frac{2}{3}$ d) $\sqrt{75} - \sqrt{27} - \sqrt{12}$
- e) $(7+2\sqrt{3})(2+3\sqrt{2})$ f) $(5+3\sqrt{7})(6-3\sqrt{7})$ g) $\overline{5} \overline{5\sqrt{5}}$ h) $15^{\frac{1}{3}} \cdot 10^{\frac{1}{3}} \div 150^{\frac{1}{3}}$
- i) $3^{-4} \times 5^{-4} \times 15^4$ j) $[4^0 + 3^0 + 2^0]^7 \div 27 - 81$ k) $\frac{125^{\frac{7}{3}} \times 216^{\frac{7}{3}}}{5^7 \times 6^7}$ l) $13^{\frac{7}{3}} \div 13^{\frac{7}{4}}$
- m) $\frac{5 \times 3^{n+2} + 4 \times 3^{n+3}}{17 \times 3^{n+2}}$ n) $\frac{125 \times 3^{-n+2} + 125 \times 3^{-n+3}}{500 \times 3^{-n+2}}$

5. Represent $\sqrt{3}$, $\sqrt{2.3}\sqrt{5}\sqrt{7}\sqrt{5.9}\sqrt{11}$ and $\sqrt{9.8}$ on the number line.

6. Rationalise of the following

- i) $\frac{3}{\sqrt{7}-\sqrt{4}}$ ii) $\frac{\sqrt{3}+1}{\sqrt{3}-1}$ iii) $\frac{1}{\sqrt{3}+\sqrt{2}+1}$ iv) $\frac{\sqrt{5}+2}{\sqrt{5}-2} + \frac{\sqrt{5}-2}{\sqrt{5}+2}$

6. HOTS QUESTIONS:

- I. If $\sqrt{3} = 1.732$, $\sqrt{2} = 1.414$ find the value of a) $\frac{1+\sqrt{2}}{-1+\sqrt{2}}$ b) $\overline{7 + 4\sqrt{3}}$
- II. If $x = 5 + 2\sqrt{6}$, then find the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$
- III. if $a = \frac{\sqrt{3}+1}{\sqrt{3}-1}$, $b = \frac{\sqrt{3}-1}{\sqrt{3}+1}$ then find the value of $a^2 + b^2 + ab$
- iv. if $x = 11 + 2\sqrt{30}$, then find the value of
- a) $x + \frac{1}{x}$ b) $x - \frac{1}{x}$ c) $x^2 + \frac{1}{x^2}$
- d) $x^3 + \frac{1}{x^3}$ e) $x^4 + \frac{1}{x^4}$ f) $x^2 - \frac{1}{x^2}$

v. if $\frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}} = a + b\sqrt{6}$, then find the value of $\frac{a+b}{a-b}$

vi. if $2 = \sqrt[2]{\sqrt[2]{\sqrt[2]{5x+6}}}$ and $y^{48} = \sqrt[2]{\sqrt[3]{\sqrt[4]{7}}}$, then find the value of x-y

vii. Write ascending and descending order of the following

a) $\sqrt{2}$, $\sqrt[3]{4}$, $\sqrt[4]{5}$ b) $\sqrt[5]{4}$, $\sqrt[3]{3}$, $\sqrt[15]{300}$

vii. simplify: $\frac{1}{\sqrt{2}+1} + \frac{1}{\sqrt{3}+\sqrt{2}} + \frac{1}{\sqrt{3}+\sqrt{4}} + \frac{1}{\sqrt{4}+\sqrt{5}} + \frac{1}{\sqrt{5}+\sqrt{6}} + \frac{1}{\sqrt{7}+\sqrt{8}} + \frac{1}{\sqrt{9}+\sqrt{8}}$

HISTORY

Solve the given worksheet up to Question no. 20 and 22.

CIVICS

1. Compile the election result of Lok Sabha Election 2019.
2. Write the names of the Prime Minister and all the ministers with their portfolio.
3. How many seats were won by women candidates in 2019? Is the no. more than that won in 2014?
4. Find the no. of SC and ST candidates.
5. Out of 25 seats in Rajasthan list all the candidates of the majority party.

ECONOMICS

Read the chapter no. 1 and answer the following questions.

1. Explain the four factors of production.
2. Differentiate between fixed and working capital.
3. What are the different ways of increasing production on the same piece of land? Use examples to explain.
4. How multiple cropping was practiced in Palampur. Explain
5. Farmers of Punjab, Haryana and Western Uttar Pradesh were rewarded with high yield of wheat. Why?
6. What are the main constraints of raising farm production? What are the major constraints in raising farm production in Palampur since 1960s?
7. Why are Farmers able to grow 3 different crops in a year in Palampur?
8. "Scientific report indicates that modern farming methods have over used the natural resource base". Justify
9. Describe the work of a farmer with one hectare of land.
10. In your region, talk to two labourers. Choose either farm labourer or labourers working at construction sites. What wages do they get? Are they paid in cash or kind? Do they get work regularly? Are they in debt?

GEOGRAPHY

Ch 1

On an outline political map of India locate and label the following:

1. Indian states with capitals
2. Tropic of Cancer
3. Standard Meridian

Ch 2

On an outline political map of India locate and label the following:

1. Mountain ranges- The Karakoram, the Zaskar, the Shivalik, the Aravali, the Vindhyas, the Satpura, the Western and the Eastern ghats.
2. Mountain peaks- K2, Kanchan Junga, Anai Mudi
3. Plateau-Deccan Plateau, Chotta Nagpur Plateau, Malwa plateau
4. Plains-Konkan, Malabar, Coromondal and Northern Circars

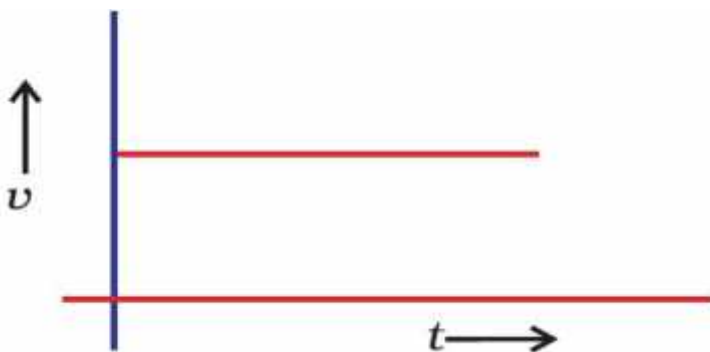
हिन्दी

1. पढ़ाई को लेकर तीन बच्चों के बीच संवाद ।
2. बिरला सीमेंट की बिक्री बढ़ाने हेतु विज्ञापन बनाइए ।
3. अपने छोटे भाई को पत्र लिखकर अध्ययनशील होने की सलाह दीजिए ।

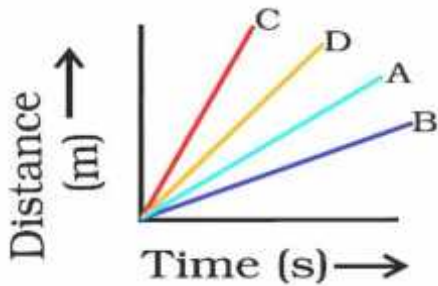
MOTION (PHYSICS)

Multiple Choice Questions

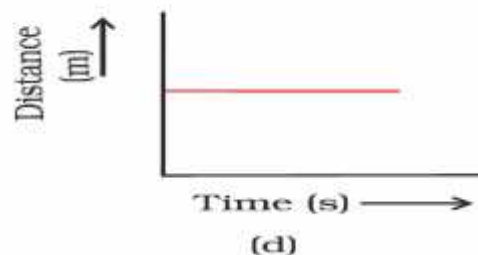
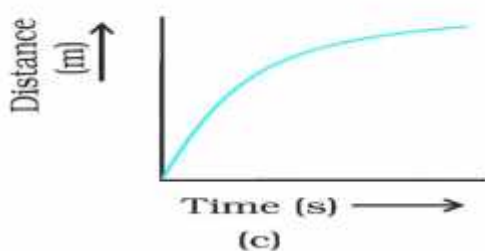
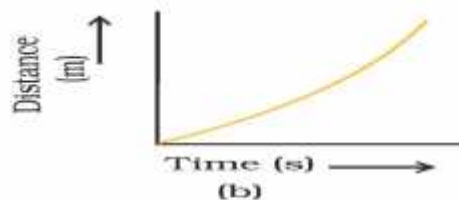
1. If the displacement of an object is proportional to square of time, then the object moves with
(a) uniform velocity (b) uniform acceleration
(c) increasing acceleration (d) decreasing acceleration
2. The distance time graph of a body coincides with its time axis. The body must be
(a) in uniform motion (b) at rest
(c) in uniformly accelerated motion (d) in zig-zag motion
3. From the given $v - t$ graph (see below Fig.), it can be inferred that the object is
(a) in uniform motion (b) at rest
(c) in non-uniform motion (d) moving with uniform acceleration



4. The velocity time graph of a body is parallel to the time axis. The body is
 (a) at rest (b) having uniform acceleration
 (c) having zero acceleration (d) having non-uniform acceleration
5. A particle is moving in a circular path of radius r . The displacement after half a circle would be:
 (a) Zero (b) r
 (c) $2r$ (d) $2r$
6. A body is thrown vertically upward with velocity u , the greatest height h to which it will rise is,
 (a) u/g (b) $u^2/2g$ (c) u^2/g (d) $u/2g$
7. The numerical ratio of displacement to distance for a moving object is
 (a) always less than 1 (b) always equal to 1
 (c) always more than 1 (d) equal or less than 1
8. Suppose a boy is enjoying a ride on a *merry-go-round* which is moving with a constant speed of 10 m/s. It implies that the boy is
 (a) at rest (b) moving with no acceleration
 (c) in accelerated motion (d) moving with uniform velocity
9. Area under $a-v-t$ graph represents a physical quantity which has the unit
 (a) m^2 (b) m
 (c) m^3 (d) m/s
10. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in below Fig.. Choose the correct statement
 (a) Car A is faster than car D. (b) Car B is the slowest.
 (c) Car D is faster than car C. (d) Car C is the slowest.

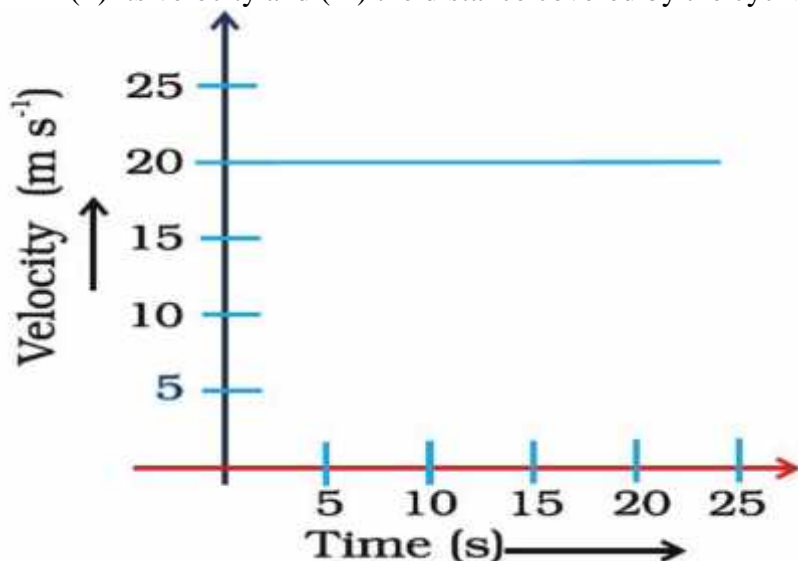


11. Slope of a velocity – time graph gives
 (a) the distance (b) the displacement
 (c) the acceleration (d) the speed
12. In which of the following cases of motions, the distance moved and the magnitude of displacement are equal?
 (a) If the car is moving on straight road (b) If the car is moving in circular path
 (c) The pendulum is moving to and fro (d) The earth is revolving around the Sun
13. Which of the following figures (see below Figure) represents uniform motion of a moving object. Correctly

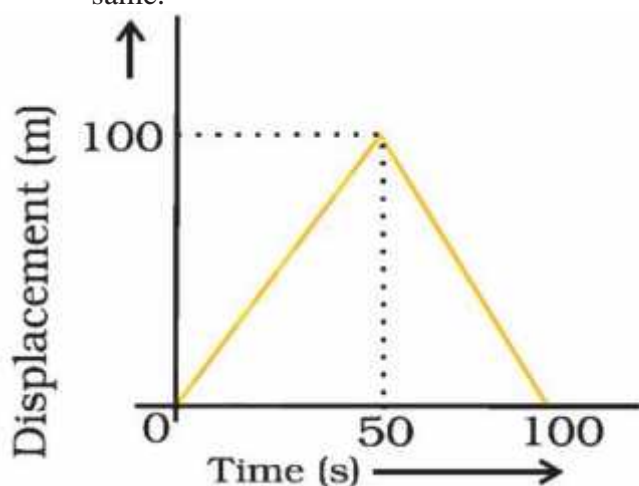


SHORT ANSWER QUESTIONS

14. The displacement of a moving object in a given interval of time is zero. Would the distance travelled by the object also be zero? Justify your answer.
15. How will the equations of motion for an object moving with a uniform velocity change?
16. A car starts from rest and moves along the x -axis with constant acceleration 5 m/s^2 for 8 seconds. If it then continues with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?
17. A motorcyclist drives from A to B with a uniform speed of 30 km/h and returns back with a speed of 20 km/h . Find its average speed.
18. Draw a velocity versus time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.
19. The velocity-time graph (see below Figure) shows the motion of a cyclist. Find (i) its acceleration (ii) its velocity and (iii) the distance covered by the cyclist in 15 seconds.



20. A girl walks along a straight path to drop a letter in the letterbox and comes back to her initial position. Her displacement-time graph is shown in below figure. Plot a velocity-time graph for the same.



CHEMISTRY

Revise Chapter – 1

Note :- Write answer of given questions in your Note Book

- 1 Convert the temperature 373 degree Celsius to Kelvin scale.
- 2 What is the physical state of water at 100 degree Celsius?
- 3 What is the pressure at sea level ?

- 4 Does the temperature of liquid increase further when it starts boiling?
- 5 How does water kept in earthen pot become quite cold during summers?
- 6 A rubber band changes its shape when stretched .Can it be regarded as solid?
- 7 A balloon when kept in Sun bursts after sometime .Why?
- 8 Cotton is solid but it floats on water. Why?
- 9 Why the temperature of boiling water does not increase even when heat is continuously supplied to it?
- 10 Write the role of temperature and pressure in liquification of a gas.
- 11 How is high compressibility property of gas useful to us ?
- 12 Why do solids are generally denser than liquid and gases ?
- 13 With the help of an activity show the rate of evaporation increases with increase in surface area .
- 14 Why do people Sprinkle water on a roof after a hot summer day ?
- 15 With the help of Example explain how diffusion of gases in water is essential?
- 16 Describe an activity to determine the boiling point of water and melting point of ice

Biology

- A. Do exercises of lesson “fundamental units of life” in your biology notebook.
- B. Write about different cell organelles and its structure in your biology notebook.
- C. Draw the diagram of prokaryotic cell, eukaryotic cell, plant and animal cell in your biology notebook