

DAV PUBLIC SCHOOL SECL KORBA
Summer Holiday Homework
(2024-25) Class-9

English
HOLIDAY HOMEWORK

1. Imagining yourself to be grandmother write a letter to your friend highlighting the importance of literacy in your life.
2. Prepare the tense chart of all the twelve kinds of tenses giving the structures, examples of all the tenses.
3. Write at least five poetic devices used in the poem 'The Brook' along with examples.

Hindi

1. आपने भी किसी स्थान की यात्रा अवश्य की होगी। यात्रा के दौरान हुए अनुभवों को 200 शब्दों में लिखिए।
2. पांच-पांच पशु-पक्षियों से संबंधित चित्र बनाकर उनकी जीवन-गाथा अलग-अलग पेज में लिखिए।
3. पाठ 1,2,3 के 10-10 प्रश्न कॉपी में लिखकर याद करें।

Sanskrit

1-‘अविवेकः परमापदां पदम्।’ (अज्ञानता बड़ी आपत्ति का स्थान होता है) इसी सिद्धान्त पर आधारित कोई एक कथा संस्कृत में चित्र सहित लिखिये तथा कथा में आये क्रियापदों की सूची बनाइये।

Mathematics - IX

Assertion-and-Reason Type Questions

Each question consists of two statements, namely, Assertion (A) and Reason (R). For selecting the correct answer, use the following code:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion
- (b) Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion
- (c) Assertion (A) is true and Reason (R) is false.
- (d) Assertion (A) is false and Reason (R) is true.

Question	Assertion	Reason
1.	Rational number lying between $1/4$ and $1/2$ is $3/8$.	Rational number lying between two rational numbers x and y is $(x+y)/2$
2.	0.329 is a terminating decimal.	A decimal in which a digit or a set of digits is repeated periodically, is called a repeating, or a recurring decimal.
3.	Rational number lying between two rational numbers x and y is $(x+y)/2$.	There is one rational number lying between any two rational numbers.
4.	5 is a rational number	The square roots of all positive integers are irrationals.
5.	Sum of two irrational numbers $2 + \sqrt{3}$ and $4 + \sqrt{3}$ is irrational number.	Sum of two irrational numbers is always an irrational number.
6.	$7^8 \div 7^4 = 7^4$	If $a > 0$ be a real number and p and q be rational numbers. Then $a^p \times a^q = a^{p+q}$
7.	$\sqrt{5}$ is an irrational number.	A number is called irrational, if it cannot be written in the form p/q , where p and q are integers and $q \neq 0$
8.	the rationalizing factor of $3+2\sqrt{5}$ is $3-2\sqrt{5}$.	If the product of two irrational numbers is rational then each one is called the rationalizing factor of the other
9.	$11^3 \times 11^4 = 11^{12}$	If $a > 0$ be a real number and p and q be rational numbers. Then $a^p \times a^q = a^{p+q}$

Multiple Choice Questions

10. Can we write 0 in the form of p/q ?
 a. Yes b. No c. Can not be explained d. None of the above
11. The three rational numbers between 3 and 4 are:
 a. $5/2, 6/2, 7/2$ b. $13/4, 14/4, 15/4$
 c. $12/7, 13/7, 14/7$ d. $11/4, 12/4, 13/4$
12. In between any two numbers, there are:
 a. Only one rational number
 b. Two rational numbers
 c. Infinite rational numbers
 d. No rational number
13. Every rational number is:
 a. Whole number b. Natural number c. Integer d. Real number
14. $\sqrt{9}$ is ____ number.
 a. A rational b. An irrational c. Neither rational nor irrational d. None of the above

Subjective Questions

15. Represent $\sqrt{8}$ on the number line.
16. Express: (i) $0.\overline{252}$ (ii) $0.2\overline{52}$ in the form of p/q , where p and q are integers.
17. If $x = 3 + 2\sqrt{2}$, check whether $x + 1/x$ is rational or irrational.
18. If $\frac{5+\sqrt{3}}{5-\sqrt{3}} = a + b\sqrt{3}$, find the value a and b .
19. Rationalize : $\frac{1}{7+2\sqrt{3}}$

Activity

20. Represent $\sqrt{10}$ on the number line by square root spiral method.
(In the activity copy)

Physics

- I. Complete your notebook and learn the taught portion.
- II. Complete the assigned experiment in your lab manual copy.
- III. Solve the given questions in your Physics copy:
 1. What would be the displacement of a particle moving in a circular path of radius r after a completing two rounds?
 - a. $2\pi r$
 - b. πr
 - c. $2r$
 - d. Zero

 2. The path length travelled by a body in a given time interval is known as _____.
 - a. Distance
 - b. displacement
 - c. velocity
 - d. acceleration

 3. Velocity is defined as _____ per time.
 - a. distance
 - b. displacement
 - c. power
 - d. acceleration

 4. A body travels along a straight path from its initial position to a point 20 m away and then returns back to its initial position. The displacement of the body is _____.
 - a. 0 m
 - b. 20 m
 - c. 40 m
 - d. 60 m

 5. Which of the following is NOT a vector quantity?
 - a. displacement
 - b. speed
 - c. velocity
 - d. acceleration

 6. What would be the displacement of a particle moving in a circular path of radius r after

half a circle?

- a. $2\pi r$
- b. πr
- c. $2r$
- d. Zero

7. A car travels 100km east and then 100km south .Finally, it come back to the starting point by south- east route .Throughout the journey the speed is constant at 60km/h.The average velocity of the car for the whole journey if the time taken is 3.3h is

- a. 60km/h
- b. 90km/h
- c. 0km/h
- d. 180km/h

8. A body travels a distance of 20m in 5 s and 30m in another 5s. The average speed of the body is

- a. 0m/s
- b. 5m/s
- c. 10m/s
- d. 20m/s

9. What would be the distance travelled by a particle moving in a circular path of radius r after half a circle?

- a. $2\pi r$
- b. πr
- c. $2r$
- d. Zero

10. The velocity of a car changes from 15m/s to 10m/s in 2 s.The acceleration of the car is

- a. -2.5m/s^2
- b. 2.5m/s^2
- c. -5m/s^2
- d. 5m/s^2

ASSERTION REASON QUESTIONS

Directions: In each of the following questions, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Assertion is false but Reason true.

1. **Assertion :** An object may acquire acceleration even if it is moving at a constant speed.

Reason : With change in the direction of motion, an object can acquire acceleration.

2. **Assertion :** Displacement of an object may be zero even if the distance covered by it is not zero.

Reason : Displacement is the shortest distance between the initial and final position.

3. **Assertion :** A body may have acceleration even when its velocity is zero.
Reason : Acceleration is rate of change of velocity.
4. **Assertion :** The numerical ratio of displacement to distance is equal to or less than one.
Reason : Displacement is a vector quantity and distance is a scalar quantity.
5. **Assertion :** The numerical ratio of displacement to distance is equal to or greater than one.
Reason : Displacement is a scalar quantity and distance is a vector quantity.

Biology

- I. Prepare any one project from the following .
 - a. A Powerpoint presentation on cell - its structure and function
 - b. A 3D model of plant cell / animal cell using ecofriendly materials.
 - c. Find out about electron microscope through internet and prepare a portfolio on it.
- II. Answer the following questions
 1. What happens to an animal cell when it is placed in a very dilute external medium? Why?
 2. a. What is a hypotonic solution?
b. What do you observe when a de -shelled egg is kept in pure water for 5 minutes. Why?
 - 3.a. What is hypertonic solution?
b. What do you observe when a de -shelled egg is kept in concentrated salt solution for 5minutes? Why?
 4. How do substance like carbon dioxide and water move in and out of the cell?
 5. What will happen if excess amount of fertilizer is added to green grass lawn?
 - 6 Differentiate between diffusion and osmosis
 7. Cells of plants fungi and bacteria withstand very dilute hypotonic external media without bursting .Why?
 - 8 Differentiate between cell wall and plasma membrane.

Chemistry

CLASS – IX A + B CHEMISTRY HOMEWORK

Q.1 Write an activity to show that particles of matter are very small .

Q.2 Define sublimation deposition condensation

Q.3 Give reasons –

1. Liquids and gases are fluids.
2. On heating solid changes into liquid
3. Black clothes dry faster in summer season than cold season.
4. Evaporation causes cooling.
5. Steam causes severe burning than boiled water.
6. We can sip hot tea easily with saucer rather than cup.
7. We prefer to wear cotton clothes in summer not synthetic clothes.
8. When petrol is kept on palm the palm becomes cold .

Q.4 Convert following temperatures into degree Celsius –

a) 720 K. b) 25K. c) 258 K. d) 373 K. e) 0 K

Q 5. Convert following temperature features into Kelvin scale-

a) -25°C b) $0.^{\circ}\text{C}$ c) $1000.^{\circ}\text{C}$ d) $850.^{\circ}\text{C}$

Social Science

I Answer the Following Questions in your notebook

- 1 What was Convention? Describe its role in France
- 2 Explain the role of Mirabeau and Abbe'Sieye's in the French Revolution
- 3 evaluate the role of Church in the French Revolution
- 4 What was the significance of the Tennis Court Oath in the French Revolution?

II Prepare 10 MCQ questions from the chapter - The French Revolution

III On an outline map of France locate and label these places - a)

Bordeaux b) Nantes c) Paris d) Mercilles

Prepare A Project Report on Disaster management. Project should be on A4 size paper and handwritten. You can choose any one topic from the given list.

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