Jasmine

CLASS 9
MATHEMATICS
PERIODIC TEST 1 (2024-25)
SET A

M.M :20
TIME : 1HR

SECTION A [1X4=4]

1. Ordinate of all points on the x-axis is

a) 0 b) 1 c) -1 d) Any number

2. The perpendicular distance of the point (-2,-7) from the x-axis is ___ units.

a) 2 b) -2 c) 7 d) -7

3. Which of the following is an irrational number?

a) $\sqrt{196}$ b) $2.7\overline{3}$ c) $\sqrt{\frac{7}{28}}$ d) 3.14121221222.....

4. Assertion: $2+\sqrt{3}$ is an irrational number.
Reason : The sum of a rational number and an irrational number is an irrational number.

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 (A) is true but Reason (R) is false.
d) Assertion (A) is false but Reason (R) is true.

SECTION B [3X2=6]

5. Write the decimal expansion of 2/11. Is it terminating or non terminating? $0.\overline{18}$

6. Express $0.1\overline{23}$ in the form p/q. $\frac{123}{999}$

7. Find the value of $2^{1/3}.\ 2^{1/4}.\ 32^{1/5}$ $2^{\frac{7}{12}}$

SECTION C [3X2=6]

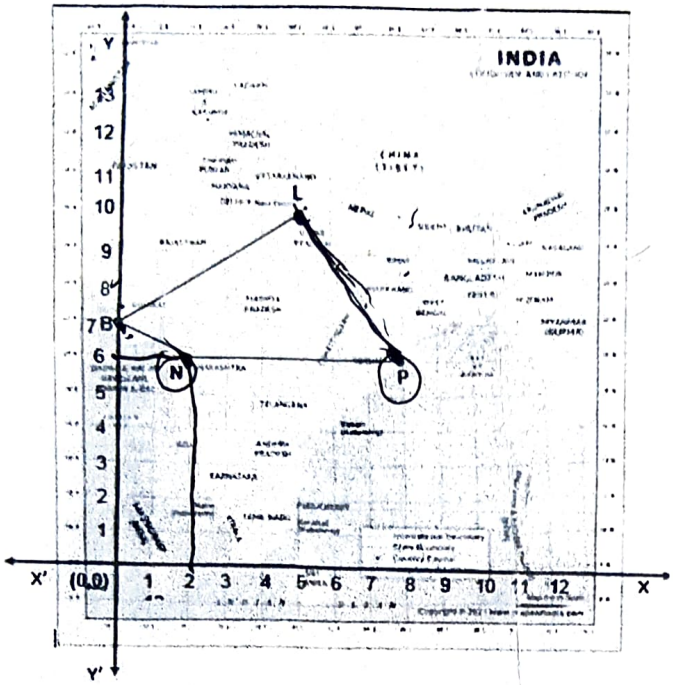
8. If $\frac{3+\sqrt{5}}{3-\sqrt{5}} = a + b\sqrt{5}$, find the values of a and b. $\frac{3+\sqrt{5}}{3-\sqrt{5}} = a+b$

9. Represent $\sqrt{5.3}$ on the number line.

SECTION D (CASE STUDY)

10. In a GPS, the lines that run east-west are known as lines of latitude, and the lines running north-south are known as lines of longitude. The latitude and the longitude of a place are its coordinates and the distance formula is used to find the distance between two places. The distance between two

parallel lines is approximately 150 km. A family from Uttar Pradesh planned a round trip from Lucknow (L) to Puri (P) via Bhuj (B) and Nashik (N) as shown in the given figure below.



Based on the above information answer the following questions using the coordinate geometry.

1. What are the coordinates of points representing Bhuj and Nashik ? [2]

2. Which two points, out of the four marked have the same ordinates? [1]

3. Find the value of (Abscissa of L) + (Ordinate of P). [1]