

O. P. JINDAL SCHOOL, SAVITRI NAGAR
Periodic Test –I (Round –I)2024 – 2025

Class: IX
 Subject: Mathematics

MM: 20
 Time: 1Hrs.

General Instructions:

1. All questions are compulsory.
2. The question paper consists of 13 questions divided in three sections A, B and C.
3. Section A contains 8 questions of 1 mark each. Section B contains 3 questions of 2 marks each. Section C contains 2 questions of 3 marks each.
4. There is no overall choice. However an internal choice has been provided. You have to attempt only one of the alternatives in all questions.
5. Use of calculator is not permitted.

Section AChoose the correct answer:

- Q1.** Subtraction of $\sqrt{2} + 5\sqrt{3}$ from $2\sqrt{2} - 3\sqrt{3}$ is:
 a) 4 b) $\sqrt{2} - 8\sqrt{3}$ c) $10\sqrt{6}$ d) $3\sqrt{2} + 2\sqrt{3}$
- Q2.** Which one of the following is not irrational?
 a) 1.23123232..... b) 1.2323..... c) $\sqrt{7}$ d) $\sqrt{9} \times \sqrt{27}$
- Q3.** The number obtained on rationalising the denominator of $\frac{1}{\sqrt{3}-1}$ is
 a) $\frac{\sqrt{3}-1}{2}$ b) $\frac{\sqrt{3}+1}{2}$ c) $\frac{\sqrt{3}-1}{\sqrt{3}+1}$ d) $\frac{1}{2}$
- Q4.** The value of: $16\sqrt{2} \div \sqrt{8}$
 a) 2 b) 4 c) 8 d) none of these
- Q5.** The decimal expansion of an irrational number may be:
 a)Recurring b) Non-terminating and non-recurring
 c)Terminating d) Either terminating or non-terminating
- Q6.** If $x^{1/12} = 64^{1/24}$ then the value of x is
 a) 4 b) 64 c) 1/2 d) 8
- Q7.** Find the value of: $(5 + \sqrt{5})(5 - \sqrt{5})$
 a) 20 b) 25 c) $2\sqrt{5}$ d) none of these
- Q8.** When a rational and an irrational number is added, the result is:
 a)Always a rational number b) Always an irrational number
 c)Irrational number d) Rational number

Section B

Answer the following questions:

Q9. Express $1.\overline{37}$ in the form of p/q .

OR

Find five rational numbers between $1/5$ and $2/5$.

Q10. Represent $\sqrt{2}$ on number line.

Q11. Find the value of: $(64)^{-2/3} \times (1/4)^{-3}$

Section C

Q12. Simplify: $\frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}}$

OR

Find the value of a and b , if $\frac{\sqrt{7} + \sqrt{2}}{\sqrt{7} - \sqrt{2}} = a + b\sqrt{14}$

Q13. Represent $\sqrt{8.7}$ on number line.
