O. P. JINDAL SCHOOL, SAVITRI NAGAR

Periodic Test – I (Round -II)(2026 – 2027)

Class: IX MM: 20

Subject: Mathematics Time: 1Hr

General Instructions:

1. All questions are compulsory.
2. The question paper consists of 11 questions divided in three sections A, B and C.
3. Section A contains 5 questions of 1 mark each. Section B contains 3 questions of 2 marks each. Section C contains 3 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 A

Choose the correct answer:

Q1. The factorization of $x^2 - 49$ is:

a) $(x - 7)^2$ b) $(x + 7)^2$ c) $(x - 49)(x + 1)$ d) $(x - 7)(x + 7)$

Q2. Simplify: $(x^2 + 5x + 6) \div (x + 3)$

a) $x + 2$ b) $x - 5$ c) $x - 3$ d) $x + 6$

Q3. Which cannot be the value of x for the expression: $(4x^2 - 16) / (x - 3)$

a) 2 b) 4 c) 3 d) 16

Q4. The coefficient of x in the expansion of $(3x + 2)^2$ is:

a) 4 b) 9 c) 6 d) 12

Q5. A cuboid has length $(x + 4)$ m, breadth $(x + 2)$ m and height is x m. Then its volume is:

a) $(x + 4)(x + 2)$ b) $x^3 + 6x^2 + 8x$ c) $x^2 + 4x$ d) $x^2 + 8 + 6x$

Section B

Q6. Factorise: $9x^2 + 24xy + 16y^2$

OR

Factorise: $\frac{p^2}{16} - 2 + \frac{16}{p^2}$

Q7. A rectangular pool has area $2x^2 + 7x + 3$ square units, if its width is $2x + 1$ unit, find its length.

Q8. Expand; $(a + b)^3$, Also identify the coefficient of ab^2 and state total number of terms in the expansion.

Section C

Q9. Simplify: $\frac{s^3 + 125t^3}{s^2 - 2st - 35t^2}$

OR

Find the value by using suitable identity: $(99)^3$

Q10. Factorise by using suitable identity:

$$27u^3 - \frac{1}{125} - \frac{27u^2}{5} + \frac{9u}{25}$$

Q11. Factorise: $64u^2 + 121v^2 + 4w^2 - 176uv - 32uw + 44vw$

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