GENERAL INSTRUCTIONS:
1.   Attempt all the questions.
2.   Section - A consists of 4 questions of 1 mark each.
3.   Section - B consists of 3 questions of 2 marks each.
4.   Section - C consists of 2 questions of 3 marks each.
5.   Section - D consist 1 questions of 4 marks.

SECTION - A   (1 x 4 = 4 marks)

1.   Find first two terms of an A.P whose n^{th} term is given by $a_n = 3 + 4n$.

2.   Find the roots of the equation $16x^2 – 8x + 1 = 0$.

3.   In an A.P, if $a = 7$ and $a_{15} = 35$, then find its common difference.

4.   Find the nature of roots of the given equation, $2x^2 – 9x + 11 = 0$.

SECTION - B (2 x 3 = 6 marks)

5.   Find two numbers whose sum is 27 and product is 182.

6.   Construct a triangle of sides 4cm, 5cm and 6cm and then a triangle similar to it whose
        sides are $\frac{2}{3}$ of the corresponding sides of the first triangle.

7.   How many two digit numbers are divisible by 3.

SECTION - C (3 x 2 = 6 marks)

8.   Which term of an A.P, 2, 5, 8, 11,……….. will be 24 more than its 30th term?

9.   Construct a tangent to a circle of radius 4cm, from a point on the concentric circle of
        radius 6cm. Also measure its length.

SECTION - D (4 x 1 = 4 marks)

10.   A train travels 90 km at a uniform speed. If the speed of a train has been 15 km/hr more,
        it would have taken 30 minutes less for the same journey. Find the speed of the train.

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