

Section-B

Note: Attempt any NINE of the following questions:

- Q.2 Simplify: (i) $\frac{2^4 5^3}{10^2}$ (ii) $(3 \times 4)^3$
- Q.3 If $\log 3 = 0.4717$, $\log 2 = 0.3010$, $\log 5 = 0.6990$ then find the value of $\log 30$
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- Q.4 If $a^b = 5$ and $a^c = 7$, find the value of a^{3b^3} . Find the factors of the following
- Q.5 (i) $x^3 - 1 + \frac{1x^2}{4x^2}$ (ii) $(2x + x)^2 - (2x - x)^2$
- Q.6 Find the LCM of $x^2 + 11x + 28$ and $x^2 + x - 12$
- Q.7 Simplify (i) $\sqrt{x} - 8 = 1$ (ii) $|5x - 12| = 7$
- Q.8 Solve $9x^2 = 12x - 49$ by quadratic formula
- Q.9 solve $\sqrt{x+2} + \sqrt{x+7} = \sqrt{6x+13}$
- Q.10 Find the value of x and y when $x + yi = -5 + 5i$
- Q.11 $x = 3 - 2\sqrt{2}$ find $x^2 + 1/x^2$
- Q.12 If the polynomial $4x^3 - 7x^2 + 6x - 3k$ is exactly divisible by $(x + 2)$ find the value of k
- Q.13 Find the square root by division method $x^4 + 2x^3 - 3x^2 + 2x + 1$
- Q.14 Find the number of digits in 4^5 .

SECTION - C

ATTEND: ANSWER THE FOLLOWING 3 QUESTIONS.

- Q.15 If two angles of a triangle are congruent then opposite sides will also be congruent
- Q.16 Define with Diagram
(i) Right Bisector of line segment (ii) Equilateral Triangle (iii) Congruent Triangles
- Q.17 If opposite sides of a quadrilateral are congruent and parallel then quadrilateral will be parallelogram.
- Q.18 Draw $\triangle ABC$. if $m\angle A = 65^\circ$, $m\angle C = m\angle B = 57^\circ$
- Q.19 Find the central point of a circle when the end points of diameter are A(5) and B(3-4).