

Note: There are three sections in this paper i.e. A, B &amp; C

VERSION: A

Instructions:

- Please attempt Section-A on the MCOs Answer Sheet only.
- Only black ball point or marker may be used for shading the relevant circle.
- Please make sure that there is no cutting, over writing, erasing, or multiple circles shading.

Time Allowed: 20 Minutes

"Section - A"

Marks: 15

Q.1. Choose the correct option i.e. A, B, C or D.

1.  $ax^2 + bx + c = 0$  is a quadratic equation where a, b and c are real number and:
- A  $a \neq 0$        B  $c \neq 0$        C  $b \neq 0$        D  $a, b = 0$
2. If  $2^x = \frac{1}{2}$  then  $x =$  \_\_\_\_\_
- A 1       B 0       C -1       D -2
3. The roots of equation  $ax^2 + bx + c = 0$  are real and equal if  $b^2 - 4ac =$  \_\_\_\_\_
- A Zero       B Greater than zero       C Less than zero       D Less than are equal to zero
4. The product of cube roots of unity is \_\_\_\_\_
- A 0       B -1       C 1       D w
5. If  $2a + 1 : 21 :: 4 : 7$ , then \_\_\_\_\_
- A  $a = \frac{13}{2}$        B  $a = \frac{11}{2}$        C  $a = 10$        D  $a = \frac{9}{2}$
6. The third proportional of x and y is \_\_\_\_\_
- A  $xy$        B  $\frac{x}{y}$        C  $\frac{y}{x}$        D None of these
7. In a set of data 41, 43, 47, 51, 57, 52, 59 median is \_\_\_\_\_
- A 51       B 47       C 57       D None of these
8. In the given data 25, 30, 31, 25, 35 the modal size is \_\_\_\_\_
- A 30       B 31       C 35       D 25
9.  $\pi/6$  radians are equal to \_\_\_\_\_
- A  $60^\circ$        B  $30^\circ$        C  $90^\circ$        D  $180^\circ$
10. A chord that contains the centre of a circle is \_\_\_\_\_ of the circle:
- A Diameter       B Tangent       C Radius       D Secant
11. Two tangents drawn to a circle from a point outside it are of \_\_\_\_\_ in length.
- A half       B equal       C Double       D triple
12. The measure of entire circle is \_\_\_\_\_
- A  $0^\circ$        B  $90^\circ$        C  $180^\circ$        D  $360^\circ$
13. An angle whose vertex is on a circle and whose sides contains chords of the circle is \_\_\_\_\_ angle.
- A inscribed       B escribed       C major       D acute
14.  $1 + \tan^2 \theta =$  \_\_\_\_\_
- A  $\sin^2 \theta$        B  $\cos^2 \theta$        C  $\operatorname{cosec}^2 \theta$        D  $\sec^2 \theta$
15.  $\operatorname{cosec} \theta =$  \_\_\_\_\_
- A  $1/\sec \theta$        B  $1/\cos \theta$        C  $\sin \theta$        D  $\frac{1}{\sin \theta}$