

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) Modulus of Complex Number $a + ib$ equals:-

- (A) $a^2 + b^2$ (B) $\sqrt{a^2 + b^2}$ (C) $a^2 - b^2$ (D) $\sqrt{a^2 - b^2}$

(2) If $A = \{ \}$, then $P(A)$ is equal to:- (A) Infinite set (B) Empty set (C) Singleton set (D) Null set

(3) Proposition $q \rightarrow p$ is converse of:- (A) $p \rightarrow q$ (B) $\sim q \rightarrow \sim p$ (C) $q \rightarrow \sim p$ (D) $\sim q \rightarrow p$

(4) If A is a matrix of order 3×4 , then the order of A^t is equal to:-

- (A) 4×3 (B) 4×4 (C) 3×3 (D) 3×4

(5) If two rows(columns) of any square matrix are identical, then $|A|$ is equal to:-

- (A) 3 (B) 2 (C) 1 (D) 0

(6) If $x^3 + 4x^2 - 2x + 5$ is divided by $x - 1$, then the remainder is:- (A) 10 (B) -10 (C) 8 (D) -8

(7) If $b^2 - 4ac < 0$ in quadratic equation $ax^2 + bx + c = 0$, then roots are:-

- (A) Rational (B) Equal (C) Real and Unequal (D) Complex/Imaginary

(8) Partial fraction of $\frac{1}{x^2 - 1}$ will be of the form:-

- (A) $\frac{Ax + B}{x^2 - 1}$ (B) $\frac{A}{x + 1} + \frac{B}{x - 1}$ (C) $\frac{A}{x + 1}$ (D) $\frac{B}{x - 1}$

(9) If $a_n = (-1)^{n+1}$, then 26th term of the sequence is equal to:- (A) 1 (B) -1 (C) 26 (D) -26

(10) In the infinite geometric series "S" equals to:-

- (A) $\frac{a}{1 - r}$ (B) $\frac{a(1 - r^n)}{1 - r}$ (C) $\frac{a(r^n - 1)}{r - 1}$ (D) $\frac{n}{2}[2a + (n - 1)a]$

(11) The value of $\frac{|3|}{|0|}$ is equal to:- (A) 0 (B) ∞ (C) 3 (D) 6

(12) If A and B are mutually exclusive events, then $A \cup B$ equals:-

- (A) $P(A) + P(B)$ (B) $P(A) - P(B)$ (C) $P(A) \cap P(B)$ (D) $P(A) + P(B) - P(A \cap B)$

(13) The sum of odd coefficients in the binomial expansion of $(1 + x)^n$ is equal to:-

- (A) 2^{n-1} (B) 2^{n+1} (C) 2^n (D) $2^n - 1$

(14) The expansion of $(1 + 2x)^{-2}$ is valid if:- (A) $|x| < \frac{1}{2}$ (B) $|x| < 1$ (C) $|x| < 2$ (D) $|x| < 3$

(15) The value of $\frac{7\pi}{9}$ in terms of degree is equal to:- (A) 150° (B) 140° (C) 130° (D) 120°

(16) $\cos(\pi + \theta) = \text{-----}$ (A) $-\cos \theta$ (B) $\sec \theta$ (C) $\cos \theta$ (D) $\sin \theta$

(17) Period of $\tan \theta$ is equal to:- (A) 4π (B) 3π (C) 2π (D) π

(18) Radius of escribed circle opposite to vertex "B" is equal to:-

- (A) $\frac{\Delta}{s}$ (B) $\frac{\Delta}{s - a}$ (C) $\frac{\Delta}{s - b}$ (D) $\frac{\Delta}{s - c}$

(19) $\cos(\tan^{-1} 0)$ is equal to:- (A) 0 (B) 1 (C) -1 (D) ∞

(20) If $x = \sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$, then 'x' equals to:- (A) $\frac{-\pi}{2}$ (B) $\frac{\pi}{3}$ (C) $\frac{-\pi}{3}$ (D) $\frac{\pi}{4}$