



GRAND TEST 2020-2021

Class: X
Paper: Mathematics

Max. Marks: 100
Duration: 2 Hours

SECTION "A" (COMPULSORY) MULTIPLE CHOICE QUESTIONS (M.C.QS)

NOTE:

- i) Attempt all the questions.
ii) Write only the answer against the proper number of the question and its part according to the question paper. iii) Each question carries 2 marks.

Q.1. Choose the best answer for each from the options given below: (50 Marks)

- 1) $\frac{1}{\sqrt{x+y}}$ is an example of ----- expression.
a. Rational b. polynomial c. binomial d. Irrational
- 2) $(a+b)(a^2-ab+b^2) =$ -----.
a. (a^3-b^3) b. (a^3+b^3) c. a^2-b^2 d. None of these.
- 3) π is a/an ----- number.
a. Rational b. polynomial c. binomial d. Irrational
- 4) If relation is given by $R = \{(0, 1), (1, 2), (3, 4)\}$ then the range of R is -----
a. $\{ \}$ b. $\{1, 2, 4\}$ c. $\{0, 1, 3\}$ d. $\{0, 1, 2, 3, 4\}$
- 5) If $A = \{x | x \in E \wedge 2 < x < 4\}$ represents a ----- set.
a. Disjoint b. Empty c. Overlapping d. Singleton
- 6) The matrix $A = \begin{bmatrix} 2 & 0 \\ 0 & 8 \end{bmatrix}$ is a ----- matrix.
a. scalar b. square c. Diagonal d. unit
- 7) The sum of measures of angles of a triangle is equal to -----.
a. 90° b. 180° c. 360° d. 45°
- 8) If the alternate angles of two coplanar lines are congruent then the lines are -----.
a. Parallel b. Intersecting c. collinear d. Adjacent
- 9) A triangle having no side congruent is called -----.
a. Right b. Isosceles c. Equilateral d. Scalene
- 10) In general in sets $A' \cup B' =$ -----.
a. $(A \cup B)$ b. $(A \cap B)$ c. $(A \cup B)'$ d. $(A \cap B)'$

- 11) The value of $x - y + xy$ if $x=1$ and $y=1$ is -----.
- a. zero b. - 1 c. 2 d. 1
- 12) If one angle formed by two intersecting lines is of measure 90° then the remaining three angles are ----- angles.
- a. Obtuse b. Right c. Acute d. Straight
- 13) The solution set of $\sqrt{x + 1} = -4$ is -----.
- a. {15} b. { } c. {±15} d. {5}
- 14) If $ax^2 + bx + c = 0$, then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ is called ----- formula.
- a. Quadratic b. Zero c. Linear d. Rational
- 15) The angle inscribed in any major arc is always -----.
- a. Obtuse b. Right c. Acute d. Straight
- 16) A circle which touches all the three side of triangle is called ----- circle.
- a. Inscribed b. Escribed c. Circumscribed d. None of these
- 17) $\cos 45^\circ =$ -----.
- a. $\sqrt{2}$ b. $\frac{1}{\sqrt{2}}$ c. $\frac{1}{2}$ d. None of these
- 18) The reciprocal of $\cot \theta$ is -----.
- a. $\frac{1}{\tan \theta}$ b. $\tan \theta$ c. $\sec \theta$ d. $\frac{1}{\cos \theta}$
- 19) $\operatorname{Cosec} (90^\circ - 30^\circ) = \sec$ -----.
- a. 30° b. 60° c. 90° d. 45°
- 20) $AA^{-1} =$ -----.
- a. { } b. Zero c. A^{-1} d. I
- 21) The chord which passes through the Centre of circle is called -----.
- a. Diameter b. Radius c. Secant d. Tangent
- 22) $\cos 20^\circ =$ -----.
- a. $\sin 20^\circ$ b. $\sin 160^\circ$ c. $\sin 70^\circ$ d. $\cos 70^\circ$
- 23) Degree of $\sqrt[3]{(a^2 - b)^3}$ is -----.
- a. 2 b. 3 c. 4 d. 0
- 24) If x is eliminated from $x+b=0$, $x+c=0$ the relation becomes -----.
- a. $b=c$ b. $b+c$ c. $bc=0$ d. $b+1=0$
- 25) The degree of $x^7 + 6x^4y^8 - 11x^9 + 15$ is -----.
- a. 7 b. 9 c. 12 d. 15

