## Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The sum of an infinite geometric series exist if | A. $\lvert r \rvert < 1$ <br> B. $\lvert r \rvert > 1$ <br> C. $r = 1$ <br> D. $r = -1$ |
| 2 | The principal value of $\sin^{-1}\sqrt{(3/2)}$ is | A. $-\pi/3$ <br> B. $\pi/3$ <br> C. $2\pi/3$ <br> D. $\pi/2$ |
| 3 | If either $A = 0$ or $B = 0$, then $Ax^2 + By^2 + 2Gx + 2Fy + c = 0$ represents a | A. Circle <br> B. Hyperbola <br> C. Ellipse <br> D. Parabola |
| 4 | Question Image | |
| 5 | Question Image | |
| 6 | Question Image | |
| 7 | The last term of $(1+2x)^{-2}$ | A. $(-1)^{-2}(2x)^{-2}$ <br> B. $(-1)^{-4}(-2x)^{-2}$ <br> C. $(-1)^{-3}(2x)^{-3}$ <br> D. Does not exist |
| 8 | Let A,B, and C be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then | A. $A \neq C$ <br> B. $B = C$ <br> C. $A = B$ <br> D. $A \neq B$ |
| 9 | Question Image | A. 0 <br> B. 1 <br> C. -1 <br> D. none of these |
| 10 | If $(1+x-2x^3)^6 = 1 + a_1 x + a_2 x^2 + a_3 x^3 + \ldots$ the the value of $a_2 + a_4 + a_6 + \ldots + a_{12}$ will be | A. 32 <br> B. 31 <br> C. 64 <br> D. 1024 |
| 11 | If a statement S(n) is true for n = 1 and the truth of S(n) for n = k implies the truth of S(n) for = k + 1, then S(n) is true for all | A. Real numbers n <br> B. Integers n <br> C. Positive integers n <br> D. None of these |
| 12 | The roots of $px^2 - (p-q)x - q = 0$ are | A. equal <br> B. Irrational <br> C. Rational <br> D. Imaginary |
| 13 | If you are looking a bird in the tree from the ground then the angle formed is called angle of_____; | A. Elevation <br> B. Depression <br> C. Right angle <br> D. None of these |
| 14 | A joint equation of the lines through the origin and perpendicular to the lines $ax^2 + 2hxy + by^2 = 0$ is indentical is $ax^2 + 2hxy + by^2 = 0$ if | A. $h^2 = ab$ <br> B. $a + b = 0$ <br> C. $a = b$ <br> D. $a \neq b$ <br> E. $a = b = 0$ |
| 15 | Question Image | |
| 16 | Question Image | |
| 17 | x is a member of the set [-1, 0, 3, 5] y is a member of the set {-2, 1, 2, 4} which is possible? | A. $x - y = -6$ <br> B. $x - y < -6$ <br> C. $x - y > -6$ <br> D. None |
| 18 | In R, the multiplicative identity is | A. 0 <br> B. 1 <br> C. -1 |

| 19 | If in a set of real no a is additive identity then | A. a+a = 2a<br>B. a+a = 1<br>C. a+a = 0<br>D. None of these |
|---|---|---|
| 20 | The multiplicative inverse of x such that x = 0 is | A. -x<br>B. Does not exist<br>C. 1/x<br>D. ±1 |