

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	$\cos(\alpha - \beta) = \cos\alpha\cos\beta + \sin\alpha\sin\beta$ is true for all	A. $\alpha < \beta$ B. $\alpha > \beta$ C. $\alpha = \beta$ D. None of these
3	Question Image	
4	A circle which touches one side of a triangle externally and the other two sides produced is called _____	A. In-circle B. Circum circle C. Escribed circle D. None of these
5	Unit vector in the positive direction of x-axis is	
6	Question Image	A. $c = 0$ B. $c = -1$ C. $c = -2$ D. $c = 1$
7	Question Image	A. A variable B. A constant C. 0 D. None of these
8	Question Image	
9	$f(x) = x^3 - x^2 + 1$ is :	A. an even function B. an odd function C. an even and implicit function D. neither even nor a odd
10	Question Image	
11	Root of the equation $3^{x-1} + 3^{1-x} = 2$ is	A. 2 B. 1 C. 0 D. -1
12	Question Image	
13	There are _____ types of rational fraction	A. Three B. Four C. Five D. Two
14	The function whose range consists of just one element is called	A. One-One Function B. Identity Function C. Onto Function D. Constant Function
15	The nth term of an A.P., is $12 - 4n$ . Its common difference is	A. 8 B. 4 C. -4 D. 16
16	The area of the circle centred at (1, 2) and passing through (4, 6) is:	A. $10\pi$ B. $25\pi$ C. $5\pi$ D. $25/2\pi$
17	Which of the following is a scalar.	A. force B. frequency C. weight D. acceleration

18	The area of the rhombus whose vertices are A(0,0),B(2,1),C(3,3),D(1,2) is	A. 36 square units B. 3 square units C. 6 square units D. 18 square units
19	The 8th term of $(1+2x)^{-1/2}$ is	A. $-\frac{221}{16} x^{7/8}$ B. $-\frac{225}{18} x^{7/8}$ C. $-\frac{407}{9} x^{3/8}$ D. $-\frac{429}{16} x^{7/8}$
20	A diagonal matrix is always	A. Identity B. Triangular C. Scalar D. Non-singular