

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$\cos 315^\circ = \underline{\hspace{2cm}}$	
2	If $A(x_1, y_1)$ , $B(x_2, y_2)$ and $C(x_3, y_3)$ are the vertices of a triangle then its centroid is	
3	$f(x) = \log x + 3$ is a	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
4	A square matrix A for which $A^t = A$ is called a	A. Column matrix B. Symmetric matrix C. Skew-symmetric matrix D. Row matrix
5	The set $(Q, .)$	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
6		A. -1 B. 0 C. 1 D. undefined
7		
8	Which of the following is a vector	A. length B. momentum C. volume D. speed
9	The 26th term of the A.P -2,-4,10,.....is	A. 136 B. -136 C. 148 D. -148
10	A kite flying at a height of 67.2 m is attached to a fully stretched string inclined at an angle of $53^\circ$ to the horizontal, the length of the string	A. 62m B. 82m C. 73m D. 57m
11	The negative square root of 9 can be written as:	A. $-\sqrt{9}$ B. $\sqrt{9}$ C. $\sqrt{18}$ D. $-\sqrt{18}$
12	$\tan(\alpha - \beta) =$	
13	If $f(x) = a_0 + a_1x + a_2x^2 + a_3x^3 + \dots + a_{n-1}x^{n-1} + a_nx^n$ then $f(n)(x)$ is equal to	A. n! B. $n!$ C. 0 D. an
14	$w^{-1} = \underline{\hspace{2cm}}$	A. 0 B. 1 C. w D. $w^2$
15		A. $n < 8/5$ B. $n < 5/8$ C. $ n  < 8/5$ D. $ n  > 8/5$
16	$2\cos^2 \frac{a}{2} = \underline{\hspace{2cm}}$ ;	A. $1 + \sin a$ B. $1 - \sin a$ C. $1 + \cos a$ D. $1 - \cos a$
17	if $f(x) = x^3 - 3x^2 + 5x - 1$ , then $f(-\sqrt{2}) =$	A. $7 + 7\sqrt{2}$ B. $3 + 3\sqrt{2}$ C. $-7 - 7\sqrt{2}$ D. $-3 - 3\sqrt{2}$

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Question Image

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If P is a whole number greater than 1, which has only P and 1 as factors. Then P is called

- A. Whole number
- B. Prime number
- C. Even number
- D. Odd number

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The points of intersection of the line  $y = 2x - 3$  and the circle  $x^2 + y^2 - 3x - 2y - 3 = 0$  are:

- A. two
- B. three
- C. less than two
- D. not intersect