

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	When the angle between the ground and the sun is 30° , flag pole casts a shadow of 40 m long. the height of the top of the flag is	A. 25m B. 23m C. 12m D. 29m
2	A man of height 6 ft observes the top of a tower and the foot of the tower at angles of 45° and 30° of elevation and depression respectively. The height of the tower is	A. $2 \sin \alpha$ B. $2 \sin \alpha \cos \alpha$ C. $2 \sin \alpha \cos \alpha / 2$ D. $1 + \tan^2 \alpha$
3	$\sin \alpha =$	A. 2, 8 B. 1, 3 C. 1, 8 D. 2, 3
4	The roots of the equation $2^{2x} - 10 \cdot 2^x + 16 = 0$ are	A. A.P. B. G.P. C. H.P. D. None of these
5	If p, q, r and in A.P., a is G.M. between p and q and b is G.M. between q and r, then a^2, q^2, b^2 are in	A. W B. N C. Q D. Q
6	The symbol of irrational is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
7	$f(x) = 2x^2 + 3x + 5$ is a	A. one element B. two elements C. three elements D. Infinite elements
8	The solution set of trigonometric equation contains	A. $\pi/2$ B. $-\pi/2$ C. π D. $\pi/3$
9	The period of $ \sin 2x $ is	A. Q B. Q' C. N D. R
10	The angle between the vectors $3i + j - k$ and $2i - j + k$ is	A. 2 B. $-3/2$ C. $\pi/2$ D. $\pi/3$
11	$Q \cup Q' =$	A. Q B. Q' C. N D. R
12	Question Image	A. 2 B. $-3/2$ C. $\pi/2$ D. $\pi/3$

C. 1
D. 0

13 The transpose of a zero matrix is a _____

- A. Column matrix
- B. Zero matrix
- C. Row matrix
- D. Scalar matrix

14 Question Image

15 $f(x) = 1$ is

- A. identity function
- B. constant function
- C. linear function
- D. quadratic function

16 The formula $a_n = ar^{n-1}$ represents

- A. nth term of G.P
- B. Sum of the first n terms
- C. G.M between a and b
- D. None of these

17 The distance of the point (2,-3) from y-axis is

- A. 2
- B. -3
- C. 1
- D. 5

18 The period of $\tan \left[\frac{x}{3} \right]$ is _____

- A. 2π
- B. 4π
- C. 3π
- D. 5π

19 Question Image

20 For trival solution $|A|$ is

- A. $\sec 3x + c$
- B. $-\operatorname{cosec} 3x + c$

- A. A
- B. $|A|$ is non zero
- C. $A = 0$
- D. None of these