

## ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	If $\triangle ABC$ is right, law of cosine reduce to	A. Law of sine B. Law of tangent C. Phthogoruous theorem D. Hero's formula
2	The triangle that does not have a right angle is called.	A. Isosceles triangle B. right angle triangle C. equivalent triangle D. oblique triangle
3	The angle of elevation of the tops of two towers at the middle point of the line joining the foots of the tower are $60^\circ$ and $30^\circ$ respectively. The the ratio of the heghts of the tower is	A. 2 : 1 B. 3 : 1 C. 1 : 2 D. 1 : 3
4	If the flag-staff 6 meters high placed on the top of a tower. Makes the shadow $2\sqrt{3}$ m on the ground, then the angle of elevation of the sun is	A. $30^\circ$ B. $35^\circ$ C. $45^\circ$ D. $60^\circ$
5	The angle of depression of a point A on the ground from the top of the tower is $30^\circ$ , then the angle of elevation of the top of the tower at the point A is	A. $60^\circ$ B. $40^\circ$ C. $41^\circ$ D. $30^\circ$
6	The angle of depression of the point at a distance 70 meters from the foot of the tower from the top of the tower is $45^\circ$ . The height of the tower is	A. 37m B. 97m C. 101m D. 70m
7	When the angle between the ground and the sun is $30^\circ$ , flag pole costss a shadow of 40 mg long. the height of the top of the flag is	A. 25m B. 23m C. 12m D. 29m
8	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
9	The towers each 120 meters high are 800 meters apart. The measure of the angle of elevation from the base of one tower to the top of the other is	A. $12^\circ$ B. $9^\circ$ C. $7^\circ$ D. $-120^\circ$
10	The angle of elevation of the top of a tree from a point 17 meters from is foot is $42^\circ$ . The height of the tree is	A. 12m B. 21m C. 17m D. 15m
11	In ladder leaning against a vertical well makes an angle of $24^\circ$ with the wall, Its foot is 5m from the wall, its length is	A. 5.47m B. 2m C. 7m D. 6.29m
12	A vertical pole is 8m high and the length of its shadow is 6m. The angle of elevation of the sun of the moment is	A. $57^\circ$ B. $-48^\circ$ C. $27^\circ$ D. $53^\circ$
13	A triangle has six	A. side B. elements C. angle D. tangents
14	The process of finding the unknown elements in triangle is called the	A. solution of the triangle B. Mean differnece C. Engineering distance D. angle of depressin
15	The period of $\cot 8x$ is	A. $\pi/10$ B. $9\pi/7$ C. $\pi/9$ D. $\pi/8$

16	The period of $\sin x/2 = \cos x/3$ is	A. 2p B. 12p C. 13p D. 7p
17	What is the period of $\sin 2x/3 \cos 4x$ ?	A. $\pi$ B. $2\pi$ C. $\pi/2$ D. $\pi/3$
18	What is the period of $\tan 4/3 x$ ?	A. $\pi/4$ B. $4\pi/3$ C. $7\pi/4$ D. $3\pi/4$
19	What is the period of $\cos 6x$ ?	A. $\pi/2$ B. $\pi/3$ C. $\pi/4$ D. $\pi$
20	What is the period of $6 \sin x$ ?	A. $\pi$ B. $-\pi$ C. $\pi/2$ D. $2\pi$
21	What is the period of $5 \cot x$ ?	A. $\pi$ B. $-\pi$ C. $\pi/2$ D. $2\pi$
22	The period of the function $\csc x/4$ is	A. $4x$ B. $\pi/4$ C. $8\pi$ D. $\pi/8$
23	The range of the tangent function is	A. all real numbers B. $-1 \leq x \leq 1$ C. natural number D. $z < \sup > + < / \sup >$
24	$2\pi$ is the period of	A. $\sin x$ B. $\tan x$ C. $\cot x$ D. all circular function
25	Tangent is .....function	A. Inverse B. one-one C. in-to D. Periodic
26	The period of $3 \sin x$ is	A. $2\pi$ B. $9\pi$ C. $3\pi$ D. $5\pi$
27	The period of $\cos(7x-5)$ is	A. $\pi/7$ B. $7\pi/2$ C. $\pi/2$ D. $2\pi/7$
28	The period of $\sin \frac{\pi}{2} x$ is	A. $\pi/2$ B. $-\pi/2$ C. $\pi$ D. $\pi/3$
29	The period of $\sin \frac{\pi}{2} x$ is	A. $\pi/2$ B. $-\pi/2$ C. $\pi$ D. $\pi/3$
30	The period of $2 \cos x$ is	A. $30\pi$ B. $7\pi$ C. $5\pi$ D. $2\pi$