Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	1/3 is _____	A. A prime number B. An integer C. A rational number D. An irrational number
3	The solution of the equation 3 $\tan^2 x = 1$ is _____	D. none of these
4	A farmer possesses 100 hectometers of land and wants to grow corn and wheat. Cultivations of corn requires 3 hours per hectometer while cultivation of wheat requires 2 hours per hectometer. Working hours cannot exceed 240. If he gets a profit of Rs. 20 per hectometer for corn and Rs. 15 per hectometer for wheat. The profit function for the farmer is	A. P(x, y) = 20x + 15y B. P(x, y) = 2x + 3y C. P(x, y) = x + y D. P(x, y) = 3x + 2y
5	The range of the principle cot function is	
6	Question Image	A. sec 5x + c B. - sec 5x + c
7	Question Image	
8	The set Q	A. Forms a group under addition B. Does not form a group C. Contains no additive indentity D. Contains no additive inverse
9	Which of the vectors have opposite direction?	
10	If $\theta = 60°$ then	A. sinθ= 1/2 B. tanθ= cot 30° C. θ=π/4 D. secθ= 4
11	Question Image	A. One-one but not onto B. One-one and onto C. Onto but not one-one D. Neither one-one nor onto
12	If the elevation of the sun is 30°, then the length of the shadow cast by a tower of 150 ft height is	
13	For trival solution |A| is	A. A B. |A| is non zero C. A = 0 D. None of these
14	Question Image	
15	Question Image	D. none of these

16	If the focus lies on the y-axis with coordinates f(0,a) and directrix of the parabola is y = -a, the equation of parabola is:	A. y² = -4 ax B. x² = 4ay C. x² = -4ay D. y² = 4ax
17	Question Image	
18	120°=_____	
19	The identity element with respect to subtraction is	A. 0 B. -1 C. 0 and 1 D. None of thes
20	Unit vector in the positive direction of x-axis is	