

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If n is any positive integer then $n! > n^2$ for	
2	If S and P are the sum and the product of roots of a quadratic equation, then the quadratic equation is	A. $x^2 + Sx - P = 0$ B. $x^2 - Sx + P = 0$ C. $x^2 - Sx - P = 0$ D. $x^2 + Sx + P = 0$
3	To express a single rational fraction as a sum of two or more single rational fractions which are called	A. improper fractions B. Partial fractions C. mixed form D. Polynomials
4	Every real number is	A. A complex number B. A rational number C. A natural number D. A prime number
5	A combination lock on a suitcase has 3 wheels each labeled with nine digits from 1 to 9. If an opening combination is a particular sequence of three digits with no repeats, the probability of a person guessing the right combination is	A. $1/500$ B. $1/504$ C. $1/252$ D. $1/250$
6	Question Image <input style="width: 100%; height: 20px;" type="text"/>	A. $\cos 3x + c$ B. $-\cos 3x + c$
7	Question Image <input style="width: 100%; height: 20px;" type="text"/>	A. Orthogonal B. Involutary C. Idempotent D. Nilpotent
8	graph of trigonometric function $y = \sec x$ does not meet	A. x - axis B. y - axis C. both axis D. None of these
9	Cycle tyres are supplied in lots of 10 and there is a chance if 1 in 500 tyres to be defective. Using Poisson distribution, the approximate number of lots containing no defective tyre in a consignment of 10, 0000 lots is	A. 9028 B. 9208 C. 9802 D. 9820
10	Domain of $\operatorname{cosec} \theta$ is	
11	64. A point (x, y, z) moves parallel to xy plane. Which of the three variables x, y, z remain fixed?	A. z B. x C. y D. x and y
12	Question Image <input style="width: 100%; height: 20px;" type="text"/>	A. 0 B. 1 C. 2 D. 4
13	Question Image <input style="width: 100%; height: 20px;" type="text"/>	
14	Question Image <input style="width: 100%; height: 20px;" type="text"/>	
15	1 radian = _____	A. $180^\circ$ B. $90^\circ$ C. $57.296^\circ$ D. $60^\circ$
16	The Principal value of $\sin^{-1}(-1/2)$	A. $\pi/2$ B. $-\pi/2$ C. $\pi$ D. $-\pi$
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. $7 - 7\sqrt{2}$

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- 18 Let the equation  $ax^2 - bx + c = 0$  have distinct real roots both lying in the open interval  $(0, 1)$  where  $a, b, c$  are given to be positive integers. Then the value of the ordered triplet  $(a, b, c)$  can be
- A.  $(5, 3, 1)$   
B.  $(4, 3, 2)$   
C.  $(5, 5, 1)$   
D.  $(6, 4, 1)$
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- 19  $120^\circ$  degrees are equal to how many radians?
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- 20 The common point to four standard parabolas
- A. Focus  
B. Centre  
C. Vertex  
D.  $P(x, y)$
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