

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	A sequence is a function whose domain is	A. N B. Subset of N C. R D. None of these
2	Question Image	
3	The area of sector with central angle of 1 radian in a circular region whose radius is 2m is	A. 0.5m ² B. 2m ² C. 1m ² D. 4m ²
4	The set { {a, b} } is	A. Infinite set B. Singleton set C. Two points set D. Empty set
5	Through how many radians does the hour hand of a clock turn in one hour	
6	$\cos(a-\beta) = \underline{\hspace{2cm}}$;	A. $\sin a \cos \beta + \cos a \sin \beta$ B. $\sin a \cos \beta - \cos a \sin \beta$ C. $\cos a \cos \beta + \sin a \sin \beta$ D. $\cos a \cos \beta - \sin a \sin \beta$
7	The length of the tangent from (2, 1) to the circle $x^2 + y^2 + 4y + 3 = 0$ is	
8	$\text{Cos}^{-1} 12/13 =$	A. $\tan^{-1} 3/5$ B. $\cot^{-1} 13/12$ C. $\text{Sec}^{-1} 13/12$ D. $\sin^{-1} 5/13$
9	Question Image	
10	The set of integer is	A. Finite group B. A group w.r.t addition C. A group w.r.t multiplication D. Not a group
11	The set {-1,1} is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
12	The term involving x ⁴ the expansion (3-2x) ⁷ is	A. 217 x ⁴ B. 15120x ⁴ C. 313x ⁴ D. -25x ⁴
13	Question Image	
14	$\text{Tan } 360^\circ = \underline{\hspace{2cm}}$	A. -1 B. 0 C. 1 D. Undefined
15	Question Image	A. 405 / 256 B. 504 / 259 C. 450 / 263 D. None
16	If $f(x) = x^2$ then $f(2)$ is	A. -2 B. 2 C. 4 D. -4
17	Question Image	A. $4(x^3 - 3x^2)^3 + c$ B. $3x^2 - 6x + c$
18	$\tan(\pi-\theta) = \underline{\hspace{2cm}}$;	A. $\tan \theta$ B. $\cot \theta$ C. $-\tan \theta$ D. $-\cot \theta$

19 The set $(\mathbb{Z}, +)$ forms a group

- A. Forms a group w.r.t addition
 - B. Non commutative group w.r.t multiplication
 - C. Forms a group w.r.t multiplication
 - D. Doesn't form a group
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20 If the st. line $3x + 4y = K$ touches the circle $x^2 + y^2 - 10x = 0$ then the value of K is

- A. -1 or 20
 - B. -10 or 40
 - C. -2 or 20
 - D. 2 or 20
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