

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
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| 1 | The domain of the principle cos function is | |
| 2 | The process of finding a function whose derivative is given is called a | A. Differentiation B. Integration C. Differential D. None |
| 3 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. -1 B. 0 C. 1 D. None of these |
| 4 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | |
| 5 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. direction ratios B. direction cosines C. direction angles D. none of these |
| 6 | The value of $\sin^{-1} \frac{5}{13}$ is equal to | A. $\cos \frac{5}{13}$ B. $\tan^{-1} \frac{5}{12}$ C. $\cos^{-1} \frac{5}{12}$ D. $2 \cos^{-1} \frac{4}{5}$ |
| 7 | Which of the vectors have opposite direction? | |
| 8 | If A is a set then any subset R of $A \times A$ is called | A. relation on A B. relation on B C. relation from A to B D. relation from B to A |
| 9 | The period of the trigonometric function $y = \sin x \cos x$ is | A. 2π B. π C. 4π D. $\pi / 2$ |
| 10 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. 1 B. 2 C. 3 D. 4 |
| 11 | (1, 2) is in the solution of the inequality | A. $2x + y \geq 8$ B. $2x + y < 6$ C. $2x - y \geq 1$ D. $2x + 3y \leq 2$ |
| 12 | If $A = [a_{ij}]$ is $(m \times n)$ matrix, then transpose of A is of the order | A. $m \times m$ B. $m \times n$ C. $n \times n$ D. $n \times m$ |
| 13 | 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 |
| 14 | For a set A, $A \cup A^c =$ ----- | A. A B. \emptyset C. Ac D. U |
| 15 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | |
| 16 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. $2x \cos x^2$ B. $2 \sin x \cos x$ C. $-\sin x^2$ D. $2x \sin x^2$ |
| 17 | The slope of the tangent at the point (h,h) of the circle $x^2 + y^2 = a^2$ is | A. 0 B. 1 C. -1 D. h |
| | | A. an even function B. an odd function C. a constant function D. a periodic function |

- 18 $f(x) = x^3 - x/x^2 + 1$ is :
B. an odd function
C. an even and implicit function
D. neither even nor a odd
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- 19 The center of the sphere which passes thro' $(a, 0, 0)$, $(0, b, 0)$, $(0, 0, c)$ and $(0, 0, 0)$ is
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- 20 Question Image
B. $\ln(x^2 - x + 1) + c$
D. $\ln(2x - 1) + c$