

ECAT Mathematics MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | $f(x) = \sin x$ is: | A. an odd function B. an even function C. an implicit function D. an exponential function |
| 2 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | |
| 3 | Composition of functions is | A. Non-commutative ($fg \neq gf$) B. non-associative [$8(fh) \neq (8f)h$] C. Commutative ($fg = gf$) D. $f \circ f \neq 1$ |
| 4 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | B. $x < \sup > - 2 < / \sup > + c$ D. not possible |
| 5 | $(0.90)^{1/2}$ is equal to | A. 0.99 B. 0.90 C. 0.80 D. 0.88 |
| 6 | The function $\phi(x)$ is an anti derivative of function $f(x), x \in D_f$ if | A. $\phi'(x) = f(x)dx$ B. $\phi(x) = f(x)dx$ C. $\phi'(x) = f(x)$ D. $\phi(x) = f'(x)dx$ |
| 7 | $n(n-1)(n-2) \dots (n-r+1) = \underline{\hspace{2cm}}$ | |
| 8 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | |
| 9 | Range of $\cos x$ is $\underline{\hspace{2cm}}$ | A. $[-1, 1]$ B. R C. Negative real numbers D. $R - \{x \mid -1 \leq x \leq 1\}$ |
| 10 | For trivial solution $ A $ is | A. A B. $ A = 0$ C. $A = 0$ D. $ A \neq 0$ |
| 11 | Empty set is | A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers |
| 12 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. 1 B. 9 C. 3 D. 5 |
| 13 | The graph of a linear function is | A. a circle B. triangle C. a straight line D. none of these |
| 14 | The general term of a sequence is denoted by | A. $a_{₁}$ B. $a_{_n}$ C. n D. $s_{_n}$ |
| 15 | Two sets A and B are said to be disjoint if | |
| 16 | Question Image <input style="width: 500px; height: 20px;" type="text"/> | A. real part of z B. imaginary part of z C. conjugate of z D. modulus of z |
| 17 | Sine rule for a triangle states that | A. $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ B. $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$ C. $\frac{a}{\sin A} + \frac{b}{\sin B} + \frac{c}{\sin C} = 2R$ D. $\frac{a}{\sin A} + \frac{b}{\sin B} + \frac{c}{\sin C} = 2r$ |

$\frac{2a}{\sin A} = \frac{2b}{\sin B} = \frac{2c}{\sin C}$

18

Question Image

- A. Identity matrix
- B. Diagonal matrix
- C. Null matrix
- D. Hermitian matrix

19

Each complex cube root of unity is square of

- A. itself
- B. 1
- C. -1
- D. the other

20

The set of first elements of the ordered pairs forming the relation is called its

- A. domain
- B. range
- C. ordered paris
- D. relation