# ECAT Mathematics MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | If $y=x^m$ then dy/dx equals: | A. mx<br>B. x/m<br>C. mx<sup>m-1</sup><br>D. xm<sup>m-1</sup> |
| 2 | For every positive integers n 1+5+9+....+ (4n - 3) is | A. n(2n - 1)<br>B. (2n - 1)<br>C. n - 1<br>D. n |
| 3 | Question Image | A. a-b=ab<br>B. ab=a<br>C. a+b=ab |
| 4 | The coefficient of xn in the expansion of (1-2x)-1 is | A. (-1)n2n<br>B. 2n<br>C. (-1)(n+1)xr<br>D. (n+1)2n |
| 5 | The area of circle of unit radius = | A. 0<br>B. 1<br>C. 4<br>D. π |
| 6 | Question Image | A. Diagonal matrix<br>B. Scalar matrix<br>C. Triangular matrix<br>D. Identity matrix |
| 7 | The angle of elevation of a tower from a point A due south of it is x and from a point B due east of A is y. If AB = 1, then the height h of the tower is given by | |
| 8 | $Tan^{-1}1/x$ = _____ | A. sin x<br>B. sec<sup>-1</sup>X<br>C. cot<sup>-1</sup>X<br>D. None of these |
| 9 | No term of a geometric sequence can be | A. 0<br>B. 1<br>C. 2<br>D. 3 |
| 10 | The 6th term of an arithmetic sequence whose first term is 3 and common difference in zero is | A. 18<br>B. 6<br>C. 3<br>D. 0 |
| 11 | Roots of the equation $x^2+ 2x + 3 = 0$ are | A. Real and equal<br>B. Real and distinct<br>C. Complex<br>D. None of these |
| 12 | Question Image | A. 4<br>B. 6<br>C. 8<br>D. 10 |
| 13 | The term involving $x^4$ in the expansion of $(3 - 2x)^7$ is | A. 120<br>B. 1512<br>C. 1250<br>D. 15120 |
| 14 | If n is not natural number, then the expansion $(1 + x)^n$ is valid for | |
| 15 | For the equation $\|x^2\| + \|x\| -6 =0$, the roots are | A. One and only one real number<br>B. Real with sum one<br>C. Real with sum zero<br>D. Real with product zero |
| 16 | Question Image | D. none of these |

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| 17 | Product of any n consecutive positive integers is divisible by | A. n<br>B. √n<br>C. n!<br>D. None |
| 18 | x = 1 is in the solution of the inequality | A. x + 1 > 0<br>B. x - 2 > 0<br>C. 3x - 1 < 0<br>D. x + 2 < 0 |
| 19 | The middle term(s) of (a+x)11 is | A. 6th term<br>B. 6thor 7th<br>C. 7th term<br>D. 6thand7th |
| 20 | The additive identity of real number is | A. 1<br>B. 2<br>C. 1/2<br>D. 0 |