Question Moved

Vivek Vidyalaya Matric Hr Sec School

I HALF PORTION

11th Standard

Business Maths

Exam Time : 03:00:00 Hrs

Total Marks : 90

I. CHOOSE THE CORRECT ANSWER

20 x 1 = 20

1) The value of the determinant $\begin{vmatrix} a & 0 & 0 \\ 0 & a & 0 \\ 0 & 0 & c \end{vmatrix}^2$ is _____.

(a) abc (b) 0 (c) $a^2b^2c^2$ (d) -abc

2) If A is an invertible matrix of order 2, then det (A^{-1}) be equal to _____.

(a) det (A) (b) $\frac{1}{det(A)}$ (c) 1 (d) 0

3) adj (AB) is equal to _____.

(a) adj A adj B (b) adj A^T adj B^T (c) adj B adj A (d) adj B^T adj A^T

4) The inventor of input-output analysis is _____.

(a) Sir Francis Galton (b) Fisher (c) Prof. Wassily W. Leontief (d) Arthur Caylay

5) The value of n, when $nP_2 = 20$ is _____

(a) 3 (b) 6 (c) 5 (d) 4

6) If n is a positive integer, then the number of terms in the expansion $(x + a)^n$ is _____

(a) n (b) n + 1 (c) n-1 (d) 2n

7) If the lines 2x - 3y - 5 = 0 and 3x - 4y - 7 = 0 are the diameters of a circle, then its centre is _____.

(a) (-1, 1) (b) (1,1) (c) (1, -1) (d) (-1, -1)

8) If $\frac{kx}{(x+4)(2x-1)} = \frac{4}{x+4} + \frac{1}{2x-1}$ then k is equal to _____

(a) 9 (b) 11 (c) 5 (d) 7

9) Number of words with or without meaning that can be formed using letters of the word "EQUATION" , with no repetition of letters is _____

(a) 7! (b) 3! (c) 8! (d) 5!

10) Combined equation of co-ordinate axes is _____.

(a) $x^2-y^2=0$ (b) $x^2+y^2=0$ (c) xy=c (d) xy=0

11) The value of $\sin 15^o$ is _____.

(a) $\frac{\sqrt{3}+1}{2\sqrt{2}}$ (b) $\frac{\sqrt{3}-1}{2\sqrt{2}}$ (c) $\frac{\sqrt{3}}{\sqrt{2}}$ (d) $\frac{\sqrt{3}}{2\sqrt{2}}$

12) (1, - 2) is the centre of the circle $x^2 + y^2 + ax + by - 4 = 0$, then its radius _____.

(a) 3 (b) 2 (c) 4 (d) 1

13) The double ordinate passing through the focus is _____.

(a) focal chord (b) latus rectum (c) directrix (d) axis

14) The value of $\frac{2\tan 30^o}{1+tan^2 30}$ is _____.

(a) $\frac{1}{2}$ (b) $\frac{1}{\sqrt{3}}$ (c) $\frac{\sqrt{3}}{2}$ (d) $\sqrt{3}$

15) $\sin\left(\cos^{-1}\frac{3}{5}\right)$ is _____.

(a) $\frac{3}{5}$ (b) $\frac{5}{3}$ (c) $\frac{4}{5}$ (d) $\frac{5}{4}$