

(Minor Test - IV)

Date : 30/06/2019

Test ID- 452

Marks :45

Business Economics, Statistics, logical reasoning, Mathematics and Commercial Knowledge

1. A Supreme Court Bench consists of 5 judges. In how many ways, the bench can give a majority division?
 

(a) 10	(b) 5
(c) 15	(d) 16
2. In how many ways can the letters of the word FAILURE be arranged so that the consonants may occupy only odd positions?
 

(a) 576	(b) 476
(c) 376	(d) 276
3. The value of  $\sum_{r=1}^5 {}^5C_r$  is :
 

(a) 29	(b) 31
(c) 35	(d) 26
4. Find the number of combinations of the letters of the word COLLEGE taken four together.
 

(a) 18	(b) 16
(c) 20	(d) 26
5. How many numbers greater than a million can be formed with the digits 4, 5, 5, 0, 4, 5, 3?
 

(a) 260	(b) 360
(c) 280	(d) 380
6. There are three blue balls, four red balls and five green balls. In how many ways can they be arranged in a row?
 

(a) 26,720	(b) 27,720
(c) 27,820	(d) 26,620
7. Six seats of articled clerks are vacant in a 'Chartered Accountant Firm'. How many different batches of candidates can be chosen out of ten candidates?
 

(a) 216	(b) 210
(c) 220	(d) None
8. How many six digit telephone numbers can be formed by using 10 distinct digits?
 

(a) 10 <sup>6</sup>	(b) 6 <sup>10</sup>
(c) ${}^{10}C_6$	(d) ${}^{10}P_6$
9. 7 books are to be arranged in such a way so that two particular books are always at first and last place. Find the number of arrangements.
 

(a) 60	(b) 120
(c) 240	(d) 480
10. Find the number of arrangements in which the letters of the word 'MONDAY' be arranged so that the words thus formed begin with 'M' and do not end with 'N'.
 

(a) 720	(b) 120
(c) 96	(d) None
11.  $(n + 1)! = 20(n - 1)!$ , find n
 

(a) 6	(b) 5
(c) 4	(d) 10
12. Six points are on a circle. The number of quadrilaterals that can be formed are:
 

(a) 30	(b) 360
(c) 15	(d) None of the above
13. How many ways a team of 11 players can be made out of 15 players if one particular player is not to be selected in the team.
 

(a) 364	(b) 728
(c) 1,001	(d) 1,234
14. There are 12 questions to be Answered to be Yes or No. How many ways can these be Answered?
 

(a) 1024	(b) 2048
(c) 4096	(d) None
15. A polygon has 44 diagonals then the number of its sides are:
 

(a) 8	(b) 9
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- (c) 10 (d) 11
16. Number of ways of shaking hands in a group of 10 persons shaking hands to each other are:  
 (a) 45 (b) 54  
 (c) 90 (d) 10
17. If six times the number of permutations of 'n' items taken 3 at a time is equal to seven times the number of permutation of (n - 1) items taken 3 at a time, then the value of 'n' will be:  
 (a) 7 (b) 9  
 (c) 13 (d) 21
18. A person has ten friends of whom six are relatives. If he invites five guests such that three of them are his relatives, then the total number of ways in which he can invite them are:  
 (a) 30 (b) 60  
 (c) 120 (d) 75
19. There are 6 men and 4 women in a group, then the number of ways in which a committee of 5 persons can be formed of them, if the committee is to include at least 2 women are:  
 (a) 180 (b) 186  
 (c) 120 (d) 105
20. The maximum number of points of inter section of 10 circles will be:  
 (a) 2 (b) 20  
 (c) 90 (d) 180
21. The number of ways in which 4 persons can occupy 9 vacant seats is:  
 (a) 6048 (b) 3024  
 (c) 1512 (d) 4536
22. The number of parallelograms, formed from a set of six parallel lines intersecting another set of four parallel lines is:  
 (a) 360 (b) 90  
 (c) 180 (d) 45
23. The number of words which can be formed by letters of the word 'ALLAHABAD' is:  
 (a) 7560 (b) 3780  
 (c) 30240 (d) 15120
24. The number of triangle that can be formed by choosing the vertices from a set of 12 points, seven of which lie on the same straight line, is :  
 (a) 185 (b) 175  
 (c) 115 (d) 105
25. If  ${}^{1000}C_{98} = {}^{999}C_{97} + {}^x C_{901}$ , find x :  
 (a) 999 (b) 998  
 (c) 997 (d) 1,000
26. The sum of all natural numbers between 100 and 1000 which are multiple of 5 is:  
 (a) 98,450 (b) 96,450  
 (c) 97,450 (d) 95,450
27. The sum of an AP, whose first term is - 4 and last term is 146 is 7171. Find the value of n.  
 (a) 99 (b) 100 +  
 (c) 101 (d) 102
28.  $\sum n^2$  defines :  
 (a)  $\frac{n(n+1)(2n+1)}{6}$  (b)  $\frac{n(n+1)}{2}$   
 (c)  $\left[\frac{n(n+1)}{2}\right]^2$  (d) None of these
29. If  $a^{1/x} = b^{1/y} = c^{1/z}$  and a, b, c are in G.P; the x, y, z are in :  
 (a) A.P. (b) G.P.  
 (c) Both (a) & (b) (d) None
30. Find the sum to n terms of the series : 7 + 77 + 777 + ..... to n terms:  
 (a)  $\frac{7}{9}(10^{n+1} - 10) - \frac{7n}{9}$  (b)  $(10^{n+1} - 10) + \frac{7n}{9}$   
 (c)  $(10^{n+1} - 10) - \frac{7n}{9}$  (d)  $(10^{n+1} - 10) + \frac{7n}{9}$

31. If the sum of  $n$  terms of an A.P. is  $(3n^2 - n)$  and its common difference is 6, then its first term is :  
 (a) 3 (b) 2  
 (c) 4 (d) 1
32. Find the sum of the series :  
 $2 + 7 + 12 + \dots + 297$ .  
 (a) 8970 (b) 8870  
 (c) 7630 (d) 9875
33. The first, second and seventh term of A.P. are in G.P. and the common difference is 2, the 2nd term of A.P. is :  
 (a)  $5/2$  (b) 2  
 (c)  $3/2$  (d)  $1/2$
34. If  $a, b, c$  are in A.P. and  $x, y, z$  are in G.P, then the value of  $x^{(b-c)} \cdot y^{(c-a)} \cdot z^{(a-b)}$   
 (a) 1 (b) 0  
 (c)  $b(c-a)$  (d) None
35. If  $x = 1 + \frac{1}{3} + \frac{1}{3^2} + \dots + \infty$   
 $y = 1 + \frac{1}{4} + \frac{1}{4^2} + \dots + \infty$   
 Find  $xy$ .  
 (a) 2 (b) 1  
 (c)  $8/9$  (d)  $1/2$
36.  $(x + 1), 3x, (4x + 2)$  are in A.P. Find the value of  $x$   
 (a) 2 (b) 3  
 (c) 4 (d) 5
37. Divide 144 into three parts which are in AP and such that the largest is twice the smallest, the smallest of three numbers will be :  
 (a) 48 (b) 36  
 (c) 13 (d) 32
38. The sum of all two Digit odd numbers is  
 (a) 2475 (b) 2575  
 (c) 4950 (d) 5049
39. If 8<sup>th</sup> term of an A.P is 15, then sum of its 15 terms is:  
 (a) 15 (b) 0  
 (c) 225 (d)  $225/2$
40. The first term of a G.P. where second term is 2 and sum of infinite term is 8 will be:  
 (a) 6 (b) 3  
 (c) 4 (d) 1
41. The value of  $1^3 + 2^3 + 3^3 + 4^3 + \dots + m^3$  is equal to:  
 (a)  $\left[\frac{m(m+1)}{2}\right]^3$  (b)  $\frac{m(m+1)(2m+1)}{6}$   
 (c)  $\left[\frac{m(m+1)}{2}\right]^2$  (d) None of these.
42. If  $x, y, z$  are the terms in G.P. then the terms  $x^2 + y^2, xy + yz, y^2 + z^2$  are in:  
 (a) A.P. (b) G.P.  
 (c) H.P. (d) None of these.
43. If  $S$  be the sum,  $P$  the product and  $R$  is the sum of reciprocals of  $n$ -terms in G.P then  $P^2 R^n =$   
 (a)  $S^{2n}$  (b)  $S^n$   
 (c)  $S^{-2n}$  (d)  $S^{-n}$
44. If  $a, b, c$  are in Arithmetic Progression (A.P.), then the value of  $a - b + c$  is:  
 (a)  $a$  (b)  $-b$   
 (c)  $b$  (d)  $c$
45. If  $\frac{1}{b+c}, \frac{1}{c+a}, \frac{1}{a+b}$  are in arithmetic progression then  $a^2, b^2, c^2$  are in  
 (a) Arithmetic Progression  
 (b) Geometric Progression  
 (c) Both in arithmetic and geometric Progression  
 (d) None of these.

***All The Best***