QB365 Question Bank Software Study Materials

Algebra 50 Important 1 Marks Questions With Answers (Book Back and Creative)

11th Standard

Business Maths and Statistics

Total Marks : 50

Multiple Choice Question

50 x 1 = 50

1) If $nC_3 = nC_2$, then the value of nC_4 is _____.

(a) 2 (b) 3 (c) 4 **(d) 5**

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

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

3) The number of ways selecting 4 players out of 5 is _____.

(a) 4! (b) 20 (c) 25 **(d) 5**

4) If $nP_r = 720\ (nC_r)$, then r is equal to _____.

(a) 4 (b) 5 **(c) 6** (d) 7

5) The possible out comes when a coin is tossed five times _____.

(a) 2^5 (b) 5^2 (c) 10 (d) $\frac{5}{2}$

6) The number of diagonals in a polygon of n seates is equal to _____.

(a) nC_2 (b) $nC_2 - 2$ **(c) $nC_2 - n$** (d) $nC_2 - 1$

7) The greatest positive integer which divide $n(n + 1)(n + 2)(n + 3)$ for $n \in N$ is _____.

(a) 2 (b) 6 (c) 20 **(d) 24**

8) 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

9) For all $n > 0$, $nC_1 + nC_2 + nC_3 + \ldots + nC_n$ is equal to _____

(a) 2n **(b) $2^n - 1$** (c) n^2 (d) $n^2 - 1$

10) The term containing x^3 in the expansion of $(x - 2y)^7$ is _____.

(a) 3rd (b) 4th **(c) 5th** (d) 6th

11) The middle term in the expansion of $\left(x + \frac{1}{x}\right)^{10}$ is _____.

(a) $10C_4\left(\frac{1}{x}\right)$ **(b) $10C_5$** (c) $10C_6$ (d) $10C_7x^4$

12) The constant term in the expansion of $\left(x + \frac{2}{x}\right)^6$ is _____

(a) 156 (b) 165 (c) 162 **(d) 160**

13) The last term in the expansion of $(3 + \sqrt{2})^8$ is _____

(a) 81 **(b) 16** (c) $8\sqrt{2}$ (d) $27\sqrt{3}$

14) 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

15) The number of 3 letter words that can be formed from the letters of the word number when the repetition is allowed are _____.

(a) 206 (b) 133 **(c) 216** (d) 300

16) The number of parallelograms that can be formed from a set of four parallel lines intersecting another set of three parallel lines is _____.

(a) 18 (b) 12 (c) 9 (d) 6

17) There are 10 true or false questions in an examination. Then these questions can be answered in _____.

(a) 240 ways (b) 120 ways **(c) 1024 ways** (d) 100 ways

18) The value of $(5C_0 + 5C_1) + (5C_1 + 5C_2) + (5C_2 + 5C_3) + (5C_3 + 5C_4) + (5C_4 + 5C_5)$ is _____.

(a) 2^6-2 (b) 2^5-1 (c) 2^8 (d) 2^7

19) The total number of 9 digit number which have all different digit is _____.

(a) 10! (b) 9! **(c) 9×9!** (d) 10×10!

20) The number of ways to arrange the letters of the word "CHEESE" is _____.

(a) 120 (b) 240 (c) 720 (d) 6

21) Thirteen guests has participated in a dinner. The number of handshakes happened in the dinner is _____.

(a) 715 **(b) 78** (c) 286 (d) 13

22) 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!

23) Sum of Binomial co-efficient in a particular expansion is 256, then number of terms in the expansion is _____.

(a) 8 (b) 7 (c) 6 **(d) 9**

24) The number of permutation of n different things taken r at a time, when the repetition is allowed is _____.

(a) r^n **(b) n^r** (c) $\frac{n!}{(n-r)!}$ (d) $\frac{n!}{(n+r)!}$

25) Sum of the binomial coefficients is _____.

(a) 2^n (b) n^2 (c) 2n (d) n + 17

26) The number of words from the letters of the word 'BHARAT, in which B and H will never come together is_____

(a) 360 **(b) 240** (c) 120 (d) None of these

27) The number of ways to arrange the letters of the word CHEESE are_____

(a) 120 (b) 240 (c) 720 (d) 6

28) Number of all 4 digit numbers having different digits formed of the digits 1, 2, 3, 4 and 5 and is divisible by 4 is_____

(a) 24 (b) 30 (c) 100 (d) 125

29) The product of r consonants possible integers is divisible by _____

(a) r! (b) (r - 1)! (c) (r + 1)! (d) none of these

30) The number of ways in which the letters of the word "ARTICLE" can be arranged so that even places are always occupied by consonants is_____

(a) 576 (b) 4C3 x 4! (c) 2 x 4! (d) none of these

31) If $nC_{12} = nC_8$ then n =_____

(a) 20 (b) 12 (c) 6 (d) 30

32) The number of ways in which a host lady can invite for a party of 8 out of 12 people of whom 2 do not want to attend the party together is_____

(a) $2 \times 11C_7 + 10C_8$ (b) $10C_8 + 11C_7$ **(c)** $12C_8 - 10C_6$ (d) none of these

33) How many different committees of 5 can be formed from 6 men and 4 women on which exact 3 men and 2 women serve?

(a) 6 (b) 20 (c) 60 **(d) 120**

34) If $43C_{r-6} = 43C_{3r+1}$ then $r =$_____

(a) 12 (b) 8 (c) 6 (d) 10

35) A lady gives a dinner party for 6 guests The number of ways in which they may be selected from among 10 funds if 2 of the funds will not attend the party together is_____

(a) 112 **(b) 140** (c) 164 (d) none of these

36) In the expansion of $(1 + x)^{20}$ the coefficients of r^{th} and $(r + 4)^{th}$ terms are equal then r = _____

(a) 7 (b) 8 **(c) 9** (d) 10

37) If there are 2 jobs, each of which can be performed independently in m and n ways respectively, then either of the 2 jobs can be performed in_____

(a) mn ways **(b) (m + n) ways** (c) m! n! (d) m(n)!

38) The value of $nC_0 - nC_1 + nC_2 - nC_3 + \ldots (-1)^n nC_n =$_____

(a) 2^{n+1} (b) n (c) 2n **(d) 0**

39) The largest co-efficients in the expansion of $(1 + x)^{24}$ is_____

(a) $24C_{24}$ (b) $24C_{13}$ **(c) $24C_{12}$** (d) $24C_{11}$

40) The total number of terms in the expansion of $[(a + b^2]^{18}$ is_____

(a) 11 (b) 36 **(c) 37** (d) 35

41) If x! = 24 then x is_____

(a) 4 (b) 3 (c) 41 (d) 1

42) The value of x (x-1)(x - 2)! is_____

(a) x! (b) (x - 1)! (c) (x - 2)! (d) (x + 1)!

43) 2 persons can occupy 7 places in _____ways

(a) 42 (b) 14 (c) 21 (d) 7

44) The value of $8P_3$ is_____

(a) 8 x 7 x 6 (b) $\frac{8\times7\times6}{3\times2\times1}$ (c) 8 x 7 (d) 3 x 2 x 1

45) Total number of words formed by 2 vowels and 3 consonants taken from 4 vowels and 5 consonants is equal to_____

(a) 60 (b) 120 **(c) 7200** (d) none of these

46) The number of ways in which 6 men can be arranged in a row so that 3 particular men are consecutive is_____

(a) 4! x 3! (b) 4! (c) 3! x 3! (d) none of these

47) If C(n,12) = C(n,8) then C(22,n) = _____

(a) 231 (b) 210 (c) 252 (d) 303

48) If $C_0 + C_1 + C_2 \ldots .Cn = 256$ then $2nC_2$ =_____

(a) 56 **(b) 129** (c) 28 (d) 91

49) The number of diagonals that can be drawn by joining the vertices of an octagon is___

(a) 20 (b) 28 (c) 8 (d) 16

50) Middle term in the expansion of $\left(\frac{2x^2}{3}+\frac{3}{2x^2}\right)^{10}$ is _____

(a) 251 **(b) 252** (c) 250 (d) none of these