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MCQs – Ch # 7: F.Sc Part 1

TEXT BOOK OF ALGEBRA AND TRIGONOMETRY CLASS XI

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Choose the correct answer.

1. For a positive integer n
   (a) $n! = n(n+1)$ (b) $n! = n(n+1)!$ (c) $n! = n(n-1)$ (d) $n! = n(n-1)!$
2. 8.7.6.5 is the factorial form of
   (a) $\frac{8!}{4!}$ (b) 8! (c) $\frac{1}{4!}$ (d) 4!
3. $\frac{8!}{7!} =$
   (a) 56 (b) 7 (c) 8 (d) $\frac{8}{7}$
4. $(n+2)(n+1)n$ in factorial form
   (a) $(n+2)!$ (b) $\frac{(n+2)!}{(n-1)!}$ (c) $\frac{(n+2)!}{n!}$ (d) none of these
5. ${}^nP_r =$
   (a) n! (b) r! (c) $\frac{n!}{(n-r)!}$ (d) none of these
6. ${}^nP_n =$
   (a) n! (b) 0 (c) 1 (d) none of these
7. n different objects can be arranged taken all at a time in
   (a) (n+1)! Ways (b) (n-1)! Ways (c) n! ways (d) n ways
8. Number of ways of writing the letters of the WORD taken all at a time is
   (a) 24 (b) 4 (c) 12 (d) 6
9. In how many ways can 5 persons be seated at a round table
   (a) 5! (b) 4! (c) 3! (d) 120
10. How many signals can be given by 5 flags of different colors, using 3 at a time
    (a) 120 (b) 60 (c) 24 (d) 15
11. How many 3 digit numbers can be formed by using each one of the digits 2,3,5,7,9 only once
    (a) 120 (b) 60 (c) 24 (d) 15
12. When a selection of objects is made without paying regard to the order of selection, it is called
    (a) sequence (b) series (c) combination (d) permutation
13. ${}^nC_r =$
    (a) $\frac{n!}{(n-r)!}$ (b) $\frac{n!}{(n+r)!}$ (c) $\frac{n!}{r!(n-r)!}$ (d) $\frac{n!}{r!}$
14. If ${}^nC_8 = {}^nC_{12}$ then n=
    (a) 20 (b) 4 (c) 8 (d) 12
15. The number of the diagonals of the six sided figure is
    (a) 15 (b) 21 (c) 9 (d) 6
16. ${}^{n-1}C_r + {}^{n-1}C_{r-1} =$
    (a) ${}^nC_{r-1}$ (b) ${}^{n+1}C_r$ (c) ${}^{n-1}C_r$ (d) ${}^nC_r$
17. The probability to get an odd number in a dice thrown once is
    (a) 6 (b) 1 (c) $\frac{1}{6}$ (d) $\frac{1}{2}$

18. The probability to get an even number in a dice thrown once is

(a) 6 (b) 1 (c) $\frac{1}{6}$ (d) $\frac{1}{2}$

19. A dice is rolled. The probability that the dots on the top are greater then 4 is

(a) $\frac{1}{6}$ (b) $\frac{1}{3}$ (c) $\frac{1}{2}$ (d) 1

20. The probability that a slip of number divided by 4 is picked from the slip bearing numbers 1,2,3,…,10 is

(a) $\frac{1}{5}$ (b) $\frac{1}{4}$ (c) $\frac{1}{3}$ (d) $\frac{1}{2}$

21. If A and B are independent events, then $P(A \cap B) =$

(a) P(A)+P(B) (b) P(A)-P(B) (c) P(A).P(B) (d) $P(A) \div P(B)$

22. The sample space for tossing a coin twice is

(a) {H,T} (b) {HH,HT,TH,TT} (c) {H,T,HH} (d) {HH,HT,TT}

23. If n is negative integer then n! is

(a) 1 (b) 0 (c) unique (d) not defined

24. $\frac{1}{(n+2)(n+1)n} =$

(a) $n!$ (b) $(n+2)!$ (c) $\frac{(n-1)!}{(n+2)!}$ (d) $\frac{(n+2)!}{(n-1)!}$

25. n(n-1)(n-2)…(n-r+1)=

(a) $n!r!$ (b) $\frac{n!}{r!}$ (c) $\frac{n!}{(n-r)!}$ (d) $\frac{(n-2)!}{n!}$

26. The number of the words that can be formed out of the letters of ASSASSINATION is

(a) $\frac{13!}{4!.3!.2!.2!}$ (b) $\frac{13}{4.3.2.2}$ (c) $\frac{13!}{4!}$ (d) $\frac{4!.3!.2!.2!}{13!}$

27. How many arrangements of the letters of the word PAKISTAN can be made

(a) $\frac{9!}{3!.2!.2!}$ (b) 9! (c) $\frac{9}{3.2.2.2}$ (d) 3!.2!.2!

28. ${}^{16}C_{11} + {}^{16}C_{10} =$

(a) ${}^{16}C_{10}$ (b) ${}^{15}C_{11}$ (c) ${}^{17}C_{10}$ (d) ${}^{17}C_{11}$

29. If ${}^{n}P_{2} = 30$ then n=

(a) -6 (b) 6 (c) 10 (d) 4

30. ${}^{n}C_{0} =$

(a) 0 (b) 1 (c) n! (d) 0!

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Made by MUHAMMAD IMRAN QURESHI

(http://www.mathcity.org/imran)