

1. The number of terms to be taken so that $1 + 2 + 4 + 8 + \dots$ will be 8191 is
 - a) 10
 - b) 13
 - c) 12
 - d) None of these
2. Which term of the progression -1, -3, -5, Is -39
 - a) 21st
 - b) 20th
 - c) 19th
 - d) None of these
3. The sum of the infinite G. P $14 - 2 + 2/7 - 2/49 + \dots$ is
 - a) $4 \frac{1}{12}$
 - b) $12 \frac{1}{4}$
 - c) 12
 - d) None of these
4. The mth term of an A.P is n and nth term is m. The rth term of it is
 - a) $m + n + r$
 - b) $n + m - 2r$
 - c) $m + n + r / 2$
 - d) $m + n - r$
5. Four geometric means between 4 and 972 are
 - a) 12, 30, 100, 324
 - b) 12, 36, 108, 324
 - c) 10, 36, 108, 320
 - d) None of these
6. The nth term of the series whose sum to n terms is $5n^2 + 2n$ is
 - a) $3n - 10$
 - b) $10n - 2$
 - c) $10n - 3$
 - d) None of these
7. In a G. P the product of the first three terms $27/8$. The middle term is
 - a) $3/2$
 - b) $2/3$
 - c) $2/5$
 - d) None of these
8. The first term of an A.P and the sums of the first five terms and the first ten terms are equal in magnitude but opposite in sign. The 3rd term of the AP is
 - a) $6 \frac{4}{11}$
 - b) 6
 - c) $4/11$
 - d) None of these

9. The sum of all natural numbers from 100 to 300 excluding those, which are divisible by 4, is
- 10200
 - 30000
 - 8200
 - 2200
10. The sum to n terms of the series 11, 23, 59, 167.... is
- $3^{n+1} + 5n - 3$
 - $3^{n+1} + 5n + 3$
 - $3^n + 5n - 3$
 - None
11. If a, b, c are in A.P then the value of $(a^2 + 4ac + c^2) / (ab + bc + ca)$
- 1
 - 2
 - 3
 - None
12. If a, b, c, d are in G.P. then the value of $b(ab - cd) - (c + a)(b^2 - c^2)$ is _____
- 0
 - 1
 - 1
 - None
13. If the sum of n terms of a G.P. with last term 128 and common ratio 2 is 255, the value of n is
- 8
 - 5
 - 3
 - None
14. The number of arrangements of the letters in the word FAILURE, so that vowels are always coming together is
- 576
 - 575
 - 570
 - None of these
15. 4 digit numbers to be formed out of the figures 0, 1, 2, 3, 4 (no digit is repeated) then number of such numbers is
- 120
 - 20
 - 96
 - None of these
16. The number of ways the letters of the word "Triangle" to be arranged so that the word angle will be always present is
- 20
 - 60
 - 24
 - 32
17. The number of arrangements of 10 different things taken 4 at a time in which one particular thing always occurs is
- 2015
 - 2016

- c) 2014
d) None of these
18. 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 is
a) 720
b) 120
c) 96
d) None of these
19. The number of ways in which a person can chose one or more of the four electrical appliances: T.V, Refrigerator, Washing Machine and a cooler is
a) 15
b) 25
c) 24
d) None of these
20. The number of parallelograms that can be formed from a set of four parallel lines intersecting another set of three parallel lines is
a) 6
b) 18
c) 12
d) 9
21. The number of ways in which 12 students can be equally divided into three groups is
a) 5775
b) 7575
c) 7755
d) None of these
22. The number of arrangement of the letters of the word COMMERCE is
a) 18
b) $\frac{18}{(2!2!2!)}$
c) 7
d) None of these
23. The number of different factors the number 75600 has is
a) 120
b) 121
c) 119
d) None of these
24. A committee of 3 ladies and 4 gents is to be formed out of 8 ladies and 7 gents. Mrs. X refuses to serve in a committee in which Mr. Y is a member. The number of such committees
a) 1530
b) 1500
c) 1520
d) 1540
25. The value of $C(16,7) + C(15,6) + C(14,5) + C(13,4) + C(12,3) + C(12,2)$ is
a) $C(17,5)$
b) $C(17,6)$
c) $C(17,7)$
d) None of these

Approved
By DC SIR at 11 Dec 14 19:57