NUMERICAL APTITUDE

Get the next number in the series.

1. 0, 2, 6, 12, 20, $\cdots$
   (a) 28 (b) 30 (c) 36 (d) 42

2. 1, 2, 6, 42, $\cdots$
   (a) 84 (b) 252 (c) 642 (d) 1806

3. 6, 18, 54, $\cdots$
   (a) 162 (b) 132 (c) 102 (d) 72

4. 11, 31, 71, 91, $\cdots$
   (a) 101 (b) 52 (c) 32 (d) 12

5. 6, 24, 60, $\cdots$
   (a) 96 (b) 112 (c) 120 (d) None

6. 3, 5, 9, 17, $\cdots$
   (a) 29 (b) 33 (c) 37 (d) 43

Insert the missing number.

7. 1386, 5475, 6237, $\cdots$, 4158
   (a) 2683 (b) 5732 (c) 9108 (d) 2782

8. 1, $\cdots$, 9, 13, 17
   (a) 3 (b) 4 (c) 5 (d) 6

9. $\frac{1}{2}, \frac{3}{8}, \frac{5}{14}, \cdots, \frac{9}{26}$
   (a) $\frac{6}{19}$ (b) $\frac{7}{18}$ (c) $\frac{6}{21}$ (d) $\frac{7}{20}$

10. 101, 109, 125, $\cdots$, 181
    (a) 131 (b) 139 (c) 143 (d) 149

11. 100, 95, 80, $\cdots$, 20
    (a) 65 (b) 60 (c) 55 (d) 50

Coding and Decoding.

12. If "TEACHING" becomes "CHEATING" then "GRADIENT" becomes
    (a) DIARGENT (b) DRIAGENT
    (c) DIRAGENT (d) DRAIGENT

13. If "FLOWER" becomes "OEWRLF" then "SIMPLE" becomes
    (a) LMPEIS (b) MLPEIS
    (c) MLPIES (d) MLPSEI

14. If "CASUAL" becomes "GEWYEP" then "PEOPLE" becomes
    (a) SHRSOH (b) SIRTDI
    (c) TISTPI (d) THSTPI

15. If "ANIMAL" becomes "BMJLBM" then "SCOTLAND" becomes
    (a) TDPUMBOE (b) RDNSKZMC
    (c) TBPSMZOC (d) RDNUKBME

16. If "APPLE" becomes "ZKKOV" then "ORANGE" becomes
    (a) LHZMSV (b) SLIZMTV
    (c) LIZNSV (d) IJZMSV

Questions Based on Calender.

17. Which of the following year is not a Leap Year ?
    (a) 2024 (b) 2080 (c) 2096 (d) 2100

18. If the year 2006 started on a Sunday, the year 2026 would start with
    (a) Monday (b) Tuesday
    (c) Wednesday (d) Thursday

19. If January 1st 2007 was a Monday, what day was January 1st 1995 ?
    (a) Sunnday (b) Monday
    (c) Friday (d) Saturday

20. In a year the month April begins on a Friday. Which month of the same year also would begin on Friday ?
    (a) January (b) July
    (c) September (d) November

Questions Based on Counting.

21. How many squares can be counted on a chess board ?
    (a) 64 (b) 128 (c) 204 (d) 256

22. How many rectangles can be counted on a chess board ?
    (a) 256 (b) 512 (c) 1024 (d) 1296

23. In how many different ways can a test of 10 "TRUE" or "FALSE" type questions be answered ?
    (a) 10 (b) 20 (c) 100 (d) 1024

24. In how many different ways can a test of 10 "TRUE" or "FALSE" type questions be answered, if the answers are alternately different ?
    (a) 2 (b) 10 (c) 20 (d) 100

25. In how many ways can a boy dress if there are 3 pants and 5 shirts ?
    (a) 3 (b) 5 (c) 8 (d) 15

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26. In how many ways can 3 boys and 4 girls be seated in a line ?
(a) 7 (b) 12 (c) 81 (d) 5040

27. In how many ways the word "TWINKLE" be mis-spelt if all the letters are used exactly once ?
(a) 7 (b) 49 (c) 349 (d) 5039

28. If there are seven friends, then what is the maximum number of hand-shakes exchanged when they meet together ?
(a) 7 (b) 14 (c) 21 (d) 42

29. In how many ways one can select fruits from 3 apples, 4 oranges and 5 mangoes ?
(a) 12 (b) 47 (c) 60 (d) 120

Distance, Speed and Time

30. If the speed of a car is 40 KMPH in the forward journey and 60 KMPH in the return journey, the average speed in KMPH is
(a) 50 (b) 48 (c) 52 (d) None

31. Two trains, each of length 300 metres, run in opposite directions on parallel tracks with speeds 70 kmph and 80 kmph. The time taken by them to cross each other is
(a) 14.4 s (b) 12.6 s (c) 10.8 s (d) 8.5 s

32. Two buses, each of length 10 metres, go in the same direction with speeds 55 kmph and 60 kmph. The time taken by the faster bus to just overtake the other is
(a) 4 s (b) 6.4 s (c) 14.4 s (d) 15.2 s

33. A river flows at a speed of 2 kmph. A boat takes 3 hours to cover a distance of 24 kilometre downstream. How many hours would it take for the return journey ?
(a) 3 (b) 4 (c) 5 (d) 6

34. The average weight of 50 students of a class is 40 Kg. When the teacher also joined the group. the average weight increased by 1 Kg. The weight of the teacher in Kg. is
(a) 51 (b) 81 (c) 91 (d) 101

35. The average mark of 32 girls in a class is 80 and that of 18 boys is 70. The average mark of the whole class is
(a) 70 (b) 80 (c) 75 (d) None

175 new students were admitted to Degree Programme. 100 opted Economics, 70 opted Commerce, 40 opted History, 30 opted both Economics and Commerce, 28 opted both Economics and History, 23 opted both Commerce and History and 18 opted all the three subjects. Answer the next three questions.

36. How many opted only Economics ?
(a) 100 (b) 70 (c) 60 (d) 40

37. How many opted exactly two subjects ?
(a) 22 (b) 25 (c) 27 (d) 29

38. How many did not opt any of the three subjects ?
(a) 22 (b) 24 (c) 26 (d) 28

39. In a class of 50 students, 40 are fluen in Hindi, 45 are fluent in English and 2 do not know these languages. How many of the class are fluent in both ?
(a) 40 (b) 38 (c) 36 (d) None

People, Time and Work

40. A can do a work alone in 20 days and B can do it alone in 30 days. The number of days they need to do it together is
(a) 10 (b) 12 (c) 15 (d) 18

41. A can do a work alone in 20 days and B can do it alone in 30 days. They together start the work and A leaves at the end of six days. The total number of days for which B worked when completing the work is
(a) 15 (b) 20 (c) 21 (d) 24

42. A can do a piece of work alone in 10 days and B can do the same work alone in 15 days. A starts the work and B joins on the sixth day. What is the number of days of work of B if they complete the work together ?
(a) 3 (b) 4 (c) 5 (d) 6

43. 15 people can do two fifth of a work in 20 days. The number of days 30 people need to do the whole work is
(a) 15 (b) 18 (c) 20 (d) 25

44. 12 people can do three fourth of a work in 20 days. The number of days 8 people need to do the remaining work is
(a) 4 (b) 6 (c) 8 (d) 10

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45. 10 men can complete 60% of a work in 18 days. The number of men required to do the remaining work in 3 days is
(a) 15 (b) 18 (c) 20 (d) 22

46. A can do one third of a work in 18 days. The number of days B, who is only 60% efficient, would take to do the remaining work is
(a) 40 (b) 60 (c) 80 (d) 90

47. A woman works only 75% of that of a man. 6 men and 8 women finish a work in 10 days. How many days would 5 men and 4 women take to do the same work ?
(a) 12 (b) 15 (c) 18 (d) 20

Ratio and Percentages

48. A csh discount of 10% is allowed after marking the price 10% above the cost. The deal has
(a) 1% profit (b) no profit & no loss
(c) 1% loss (d) Data insufficient

49. Due to 10% increase in price, the sales decreased by 10%. The total revenue has
(a) Increase by 1% (b) Decrease by 1%
(c) No change (d) Data insufficient

50. An item was sold for Rs. 8510 at 15% profit. The cost is
(a) 7233.50 (b) 7400 (c) 9786.50 (d) 8100

51. The 250% of 40% of 80% of an amount will be what percent of the original amount ?
(a) 60 (b) 80 (c) 100 (d) 185

52. If 100 is 80% of 25% of 40% of a number, then the number is
(a) 1000 (b) 1250 (c) 1500 (d) 5000

53. A man has monthly income Rs.20000. He spends 25% on food, 20% of the remaining for rent. What % is now remaining ?
(a) 60 (b) 65 (c) 70 (d) Data insufficient

54. A city has a population of 3,00,000 of which 1,80,000 are male. 50% are literate. If 70 % of the male are literate, then the number of literate females is
(a) 24000 (b) 30000 (c) 54000 (d) 60000

55. Rs. 700 was shared among A, B and C. Ratio of shares of A & B is 2 : 3, and that of B and C is 4 : 5. The share of B is (a) Rs 160 (b) Rs 240 (c) Rs 280 (d) Rs 300

56. Three persons A, B and C hired a car on sharing basis and paid Rs. 10400. They had used the car for 7, 8 and 11 hours respectively. What will January 1st 2007 be the share of B ?
(a) Rs.2900 (b) Rs.3200 (c) Rs.3600 (d) Rs.4400

57. In a 200 metre race, X can beat Y by 20 metre and Y can beat Z by 10 metre. Then X would beat Z by
(a) 30 m (b) 29 m (c) 15 m (d) None

58.

?	13	49
9	17	69
13	11	59

(a) 5 (b) 9 (c) 10 (d) 21

59.

13	54	?
7	45	32
27	144	68

(a) 42 (b) 36 (c) 6 (d) 4

60. Five persons A, B, C, D and E stand on a line. First A and B interchange their positions. Then B and C do so. Then C and D do so. Then D and E do so. Who is standing in the middle now ?
(a) A (b) C (c) D (d) E

61. If 5 seconds is the time elapsed when a clock stikes 6, the time elapsed in seconds when it strikes 12 is
(a) 9 (b) 10 (c) 11 (d) 12

62. The number of times in a day the minute and hour hands of a clock coincide is
(a) 12 (b) 13 (c) 24 (d) 25

63. 2 out of 5 of the number $\frac{15}{28}$ is
(a) $\frac{17}{33}$ (b) $\frac{3}{14}$ (c) $\frac{13}{23}$ (d) None

64. 27 identical cubes are put 3 X 3 X 3 to form a large cube which is then painted on all sides. The number of the small cubes on which no side gets paint is
(a) 1 (b) 3 (c) 9 (d) None

65. The length of the longest stick that can be placed in a room of 12 metre length, 4 m width and 3 m height is
(a) 12 m (b) 13 m (c) 15 m (d) 16 m

66. Choose the smallest among the numbers given.
(a) $\frac{7}{9}$ (b) $\frac{4}{5}$ (c) $\frac{11}{13}$ (d) $\frac{17}{19}$

67. Choose the largest among the numbers given.
(a) $2\sqrt{11}$ (b) $3\sqrt{5}$ (c) $4\sqrt{3}$ (d) $5\sqrt{2}$