Solved Practice Question Set on Numerical Aptitude for SSC Combined Graduate Level Exam, 2012

1. If the ratio of cost price and selling price of an article be as 10: 11, the percentage of profit is

(1) 8

(2) 10

(3) 11

(4) 15

2. A manufacturer marked an article at Rs. 50 and sold it allowing 20% discount. If his profit was 25% then the cost price of the article was

(1) Rs. 40

(2) Rs. 35

(3) Rs. 32

(4) Rs. 30

3. A shopkeeper earns a profit of 12% on selling a book at 10% discount of the printed price. The ratio of the cost price and the printed price of the book is

(1) 45:56

(2) 45:51

(3) 47:56

(4) 47:51

4. By selling a bicycle for Rs. 2,850, a shopkeeper gains 14%. If the profit is reduced to 8%, then the selling price will be

(1) Rs. 2,600

(3) Rs. 2,800

(2) Rs. 2,700

(4) Rs. 3,000

5. By selling an article, a man makes a profit of 25% of its selling price His profit per cent is

(1) 20

(2) 25

(3) $16\frac{2}{3}$

(4) $33\frac{1}{3}$

6. If A's incoem is 50% less than that of B's then B's income is what percent more han that of A?

(1) 125

(2) 100

(3) 75

(4) 50

7. 1.14 expressed as a percent of 1.9 is

(1) 6%

(2) 10%

(3) 60%

(4) 90%

8. Two natural numbers are in the ratio 3:5 and their product is 216. The smaller of ht enumbers is

(1) 36

(2) 24

(3) 18

(4) 12

9. If 60% of A = of B then A:B is

(1) 9:20

(2) 20:9

(3) 4:5

(4) 5:4

10. Two successive price increasses of 10% and 10% of an article are equivalent to a single price increase of

(1) 19%

(2) 20%

(3) 21%

(4) 22%

11. A can compete a piece of work in 18 days, B in 20 days and C in 30 days. B and C together start the work and are forced to leave after 2 days. The time taken by A alone to complete the remaining work is

(1) 10 days

(2) 12 days

(3) 15 days

(4) 16 days

12. A train, 300m long, passed a man, walking along the line in the sme direction at the rate of 3 km/hr in 33 seconds. The speed of the train is

(1) 30 km/hr

(2) 32 km/hr

(3) km/hr

(4) km/hr

Directions (13-15): The pie chart, given here, represents the number of valid votes obtained by four students who contested election, for school leadership. The total number of valid votes polled was 720. Observe the chart and answer the questions based on it.

13. What was the minimum number of votes obtained by any candidate?

(1) 100

(2) 110

(3) 120

(4) 130

14. What was the winner?

(1) Sivaraman

(2) Paramjeet

(3) Yasin

(4) Vishwanath

15. By how many votes did the winner defeat his nearest rival?

(1) 40

(2) 45

(3) 48

(4) 50

16. The ratio of incoem and expenditure of a person is 11:10. If he saved Rs. 9,000 per annum his monthly income is

(1) Rs. 8,000

(2) Rs. 8,800

(3) Rs. 8,500

(4) Rs. 8,250

17. If $W_1:W_2 = 2:3$ and $W_1:W_2 = 1:2$ then $W_2:W_3$ is

(1) 3:4

(2) 4:3

(3) 2:3

(4) 4:5

18. A copper wire of length 36 m and diameter 2 mm is melted to form a sphere. The radium of the sphere (in cm) is

(1) 2.5

(2) 3

(3) 3.5

(4) 4

19. The ratio of the radii of two wheels is 3:4. The ratio of their cirucmferences is

(1) 4:3

(2) 3:4

(3) 2:3

(4) 3:2

20. If the length of a rectangle is increased by 10% and its breadth is decreased by 10% then change in its area will be increase

(1) 1% decrease

(2) 1% decrease

(3) 10% decrease

(4) No change

21. In how many years will a sum of money double itself at simple interest per annum?

(1) 24

(2) 20

(3) 16

(4) 12

22. A sum of Rs. 12,000, deposited at compound interest becomes double after 5 years. How much will it be after 20 years?

(1) Rs. 1, 44, 000

(2) Rs. 1, 20, 000

(3) Rs. 1, 50, 000

(4) Rs. 1, 92, 000

Direction (23-25): The piechart, given here, shows the amount of money spent on various sports by a school administration in a particular year. Observe the pie chart and answer the equstions based on this graph.

23. If the money spent on football was Rs. 9,000how much more money was spent on hockey then on football?

(1) Rs. 11,000

(2) Rs. 11,500

(3) Rs. 12,000

(4) Rs. 12,500

24. If the money spent on football was Rs. 9,000, what amount was spent on Cricket?

(1) Rs. 31,000

(2) Rs. 31,500

(3) Rs. 32,000

(4) Rs. 32,500

25. If the money spent on football is Rs. 9, 000 then what was the total amount spent on all sports?

(1) Rs. 73,000

(2) Rs. 72,800

(3) Rs. 72,500

(4) Rs. 72,000

26. $(1^2 + 2^2 + 3^2 + \ldots\ldots\ldots + 10^2)$ is equal to

(1) 380

(2) 385

(3) 390

(4) 392

27. The sixth term of the sequence 2, 6, 11, 17, ... is

(1) 24

(2) 30

(3) 32

(4) 39

28. Two number are in the ratio 7 : 11. If 7 is added to each of the numbers, the ratio becomes 2:3. The smaller number is

(1) 39

(2) 49

(3) 66

(4) 77

29. $\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right) \ldots.. \left(1 - \frac{1}{25}\right)$ is equal to

(1) $\frac{2}{25}$

(2) $\frac{1}{25}$

(3) $1\frac{19}{25}$

(4) $\frac{1}{325}$

30. A number, when divided by 136, leaves remainder 36. If the same number is divided by 17, the remainder will be

(1) 9

(2) 7

(3) 3

(4) 2

31. Simplified from of is

(1) x^5

(2) x^{-5}

(3) x

(4) x^{-0}

32. A 4-digit number is formed by repeating a 2-digit number such - as 15 15, 737, etc. Any number of this' form is exactly divisible by

(1) 7

(2) 11

(3) 13

(4) 101

33. $(0.1 \times 0.01 \times 0.001 \times 10^7)$ is equal to

(1) 100

(2) 50

(3) 152

(4) 10

34. If $2p + = 4$ the value of $p^3 +$ is

(1) 4

(2) 5

(3) 8

(4) 45

35. IF P and Q represent digits, what is the possible maximum value of Q in the statement 5p9 + 327 + 2q8 = 1114?

(1) 9

(2) 8

(3) 7

(4) 6

36. The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is

(1) 1

(2) 2

(3) 3

(4) 4

37. Two equal vessels are filled with the mixtures of water and milk in the ratio of 3:4 and 5:3 respectively. If the mixtures are poured into a third vessel, the ratio of water and milk in the third vessel will be

(1) 15:12

(2) 53:59

(3) 20:9

(4) 59:53

38. I am three times as old as son, 15 years hence, 1 will be two as old as my son. The sum of our ages is

(1) 48 years

(2) 60 years

(3) 64 years

(4) 72 years

39. Three bells ring simultaneously at 11 am. They ring at regular intervals of 20 minutes, 30 minutes, 40 minutes respectively. The time when all the three ring together next is

(1) 2pm

(2) 1 pm

(3) 1.15 pm

(4) 1.30 pm

40. A and B together can do a work in 12 days. B and C together do it in 15 days. If A's efficiency is twice that of C, then the days required for B alone to finish the work is

(1) 60

(2) 30

(3) 20

(4) 15

41. If $\sqrt{1 + \frac{x}{9}} = \frac{13}{3}$, then the value of

(1) 1439/9

(2) 160

(3) 1443/9

(4) 169

42. The sum of two numbers is 24 and their product is 143. The sum of their squares is

(1) 296

(2) 295

(3) 290

(4) 228

43. Which one of the following will completely divide $5^{71} + 5^{72} + 5^{73}$?

(1) 150

(2) 160

(3) 155

(4) 30

44. L.C.M. of two numbers is 120 and their H.C.F. is 10. Which of the following can' be the sum of those two numbers

(1) 140

(2) 80

(3) 60

(4) 70

45. When 'n' is divisible by 5 the remainder is 2. What is the remainder when n^2 is divided by 5?

(1) 2

(2) 3

(3) 1

(4) 4

46. A student was asked to divide a number by 6 and add 12 to the quotient. He, however, first added 12 to the number and then divided it by 6, getting 112 as the answer. The correct answer should have been

(1) 124

(2) 122

(3) 118

(4) 114

47. Four runners started running simultaneously from a point on a circular track, They took 200 seconds, 300 seconds to complete one round. After how much time do they meet at the starting point for the first time

(1) 1800 seconds

(2) 3600 seconds

(3) 2400 seconds

(4) 4800 seconds

48. 'x' number men can finish a piece of work in 30 days. If there were 6 men more, the work could be finish in 10 days less. The original number of en is

(1) 6

(2) 10

(3) 12

(4) 15

49. A work can be complete by P and Q in 12 days, Q and R in 15 days, R and P in 20 days. In how many days P alone can finish the work?

(1) 10

(2) 20

(3) 30

(4) 60

50. A is thrice as good a workman as B and is, therefore, able to finish a piece' of work in 60 days less than B. The time (in days) in which they can do it working together is

(1) 22

(2) $22\frac{1}{2}$

(3) 23

(4) $23\frac{1}{4}$

ANSWERS

1	(2)	26	(2)
2	(3)	27	(3)
3	(1)	28	(2)
4	(2)	29	(1)
5	(4)	30	(4)
6	(2)	31	(3)
7	(3)	32	(4)
8	(1)	33	(4)
9	(4)	34	(2)
10	(3)	35	(3)
11	(3)	36	(2)
12	(4)	37	(4)
13	(3)	38	(2)
14	(1)	39	(2)
15	(1)	40	(3)
16	(4)	41	(2)
17	(1)	42	(3)
18	(2)	43	(3)
19	(2)	44	(4)
20	(2)	45	(4)
21	(3)	46	(2)
22	(4)	47	(1)
23	(1)	48	(3)
24	(3)	49	(3)
25	(4)	50	(2)