

## APTITUDE MASTERY SERIES

## **MODULE 1 – NUMBER SYSTEM**

1.	A number when divided by 5 leaves a remainder
	of 4, when the double (i.e., twice) of that number
	is divided by 5 the remainder will be:

- (a) 0
- (b) 1
- (c) 3
- (d) 2
- 2. If the sum of the three consecutive integers is 21, then the sum of the two smaller integers is:
  - (a) 11
- (b) 5
- (c) 12
- (d) 13
- 3. Raja gets 3 marks for each correct sum and loses 2 marks for each wrong sum. He attempts 30 sums and obtains 40 marks. The number of sums solved correctly is:
  - (a) 10
- (b) 15
- (c) 20
- (d) 25
- 4. Find the unit digits of the expression:  $78^{5562} \times 56^{256}$  $\times 97^{1250}$ .
  - (a) 4
- (b) 5
- (c) 6
- (d)7
- 5. In Somnath Temple there are some magical bells which tolls 18 times in a day, simultaneously. But every bell tolls at a different interval of time, but not in fraction of minutes. The maximum number of bells in the temple can be:
  - (a) 18
- (b) 10
- (c) 24
- (d) 6
- 6. How many natural numbers up to 1155 are divisible by either 5 or 7 but not by 11?
  - (a) 330
- (b) 333
- (c) 105
- (d) None of these
- 7. If the sum and the product of two numbers are 25 and 144 respectively then the difference of the numbers must be:
  - (a) 3
- (b) 5
- (c) 7
- (d) 11
- 8. Find the remainder when  $1! + 2! + 3! + \dots +$ 77! is divided by 7:
  - (a) 0
- (b) 5
- (c) 4
- (d)7

- 9. A number 'A' when divided by 'D' leaves the remainder 18 and if another number 'B' is divided by the same divisor 'D' it leaves the remainder 11. Further if we divide A + B by 'D' then we obtain the remainder 4. Then the common divisor 'D' is:
  - (a) 21
- (b) 22
- (c) 15
- (d) 25
- 10. Sanjay plants his garden with 5550 trees and arranged them such that there is one plant more per row as there are rows. The number of tress in each row is:
  - (a) 56
- (b) 74
- (c) 75
- (d) 76
- 11. Four runners started running the race in the same direction around a circular path of 7 Km. Their speeds are 4, 3, 9 and 3.5 km/hr individually. If they have started their race at 6 o'clock in the morning, then at what time they will be at the starting point?
  - (a) 8.00 p.m
- (b) 8.30 p.m
- (c) 7.00 p.m
- (d) 9.00 p.m
- 12.  $1 \div \frac{1}{1 \div \frac{1}{1 \div \frac{1}{2}}}$  is equal to:
  - (a)  $\frac{1}{2}$
- (b) 1 (c) 3
- (d)  $1\frac{1}{2}$
- 13. Find the value of x in  $\sqrt{x + 2\sqrt{x + 2\sqrt{x + 2\sqrt{3x}}}} = x$ . (d) 12 (a) 1
- 14. Three mangoes, four guavas and five watermelons cost Rs.750. Ten watermelons, six mangoes and nine guavas cost Rs.1580. What is the cost of six mangoes, ten watermelons and four guavas?
  - (a) 1280
- (b) 1080
- (c) 1180
- (d) cannot be determined



- 15. Some birds settled on the branches of a tree. First, they sat one to a branch and there was one bird too many. Next they sat two to a branch and there was one branch too many. How many branches were there?
  - (a) 3
- (b) 4
- (c) 5
- (d) 6

## **HOME WORK**

- 16. When the natural numbers 1, 2, 3, ....., 500 are written, then the digit 3 is used *n* times in this way. The value of *n* is:
  - (a) 100
- (b) 200
- (c) 300
- (d) 280
- 17. In a mobile shop  $\frac{7}{12}$  mobiles are imported and rest are manufactured in India. Further  $\frac{1}{5}$ th Indian mobiles are coloured while  $\frac{5}{17}$ th imported mobiles are black and white. If there are a total of 150 coloured mobiles in the shop, then the total number of mobile phones in the shop is:
  - (a) 500
- (b) 600
- (c) 800
- (d) data insufficient
- 18. If 4 is added to the numerator of a fraction, it becomes 1/3 and if 3 is added to the denominator of the same fraction it becomes 1/6. The sum of the numerator and denominator is:
  - (a) 32
- (b) 7
- (c) 4
- (d) 3
- 19. Reynolds offers a total of 150 pens to its customers. As per the scheme, one pen will be offered on the purchase of a "Quantitative Aptitude" book. Out of 150 pens, the cost of some pens is Rs. 3 and the cost of rest of the pens is Rs. 5. At the most, how many customers can avail a pen of Rs. 5 as an offer from the company if the total cost of the pens cannot exceed Rs. 745.
  - (a) 45

(b) 120

(c) 147

- (d) none of these
- 20. In how many ways can 2310 be expressed as a product of 3 factors?
  - (a) 41
- (b) 23
- (c) 56
- (d) 46

