

### NUMERICAL ABILITY III

1. In a division sum, the divisor is 10 times the quotient and 5 times the remainder. If the remainder is 46, the dividend is:

(1) 4236 (2) 4306

(3) 4336 (4) 5336

2. If  $1.5x = 0.04y$ , then the value of  $(y-x)(y+x)$  is:

(1)  $730/77$  (2)  $73/77$

(3)  $7.3/77$  (4)  $703/77$

3. An employee may claim Rs. 7.00 for each km when he travels by taxi and Rs. 6.00 for each km if he drives his own car. If in one week he claimed Rs. 595 for traveling km. How many kms did he travel by taxi?

(1) 55 (2) 65

(3) 62 (4) 70

4. The square root of  $3 + \sqrt{5}$  is :

(1)  $\sqrt{3/2 + 1/2}$  (2)  $\sqrt{3/2 - 1/2}$

(3)  $5\frac{1}{2} - 1\frac{1}{2}$  (4)  $5\frac{1}{2} + 1\frac{1}{2}$

5. The mean temperature of Monday to Wednesday was  $37^{\circ}\text{C}$  and of Tuesday to Thursday was  $34^{\circ}\text{C}$ , if the temperature on Thursday was  $\frac{4}{5}$ th that of Monday, then what was the temperature on Thursday?

(1)  $36.5^{\circ}\text{C}$  (2)  $36^{\circ}\text{C}$

(3)  $35.5^{\circ}\text{C}$  (4)  $34^{\circ}\text{C}$

6. A certain number of two digits is three times the sum of its digits. If 45 be added to it, the digits are reversed. The number is:

(1) 72 (2) 32

(3) 27 (4) 23

7. Three years ago the average age of A and B was 18 years. While C joining them now, the average becomes 22 years. How old (in years) is C now?

(1) 24 (2) 27

(3) 28 (4) 30

8. If  $2^{(2x-1)} = 8^{(3-x)}$ , then the value of x is:

(1) -1 (2) -2

(3) 2 (4) 3

9. A man's basic pay for a 40 hours' week is Rs. 200. Overtimes is paid at 25% above the basic rate. In a certain week, he worked overtime and his total was Rs. 300. He therefore, worked for a total of (in hours):

(1) 52 (2) 56

(3) 58 (4) 62

10. On a Rs. 10,000 payment order, a person has choice between 3 successive discounts of 10%, 10% and 30% and 3 successive discounts of 40%, 5% and 5%. By choosing the better one he can save (in Rupees):

(1) 200 (2) 255

(3) 400 (4) 433

11. Rs. 600 are divided among A, B, C so that Rs. 40 more than  $\frac{2}{5}$  th of A's share, Rs. 20 more than  $\frac{2}{7}$  th of B's share and Rs. 10 more than  $\frac{9}{17}$  th of C's may all be equal. What is A's share (in Rupees)?

(1) 150 (2) 170

(3) 200 (4) 280

12. A, B, C started a business with their investment in the ratio 1 : 3 : 5. After 4 months, A invested the same amount as before and B as well as C withdrew half of their investments. The ratio of their profits at the end of the year was:

(1) 5 : 6 : 10 (2) 6 : 5 : 10

(3) 10 : 5 : 6 (4) 4 : 3 : 5

13. If 9 men working  $7\frac{1}{2}$  hours a day can finish a piece of work in 20 days, then how many days will be taken by 12 men, working 6 hours a day to finish the work? It is being given that 2 men of latter type work as much as 3 men of the former type?

(1)  $9\frac{1}{2}$  (2) 11

(3)  $12\frac{1}{2}$  (4) 13

14. Three pipes A, B and C can fill a cistern in 6 hours. After working at it together for 2 hours, C is closed and A and B can fill the remaining part in 7 hours. The number of hours taken by C alone to fill the cistern is:

(1) 12 (2) 14

(3) 16 (4) 18

15. A train B speeding with 120 kmph crosses another train C running in the same direction, in 2 minutes. If the lengths of the trains B and C be 100 m and 200 m respectively, what is the speed (in kmph) of the train C?

(1) 111 (2) 123

(3) 127 (4) 129

16. River is running at 2 kmph. It took a man twice as long to row up as to row down the river. The rate (in km/hr) of the man in still water is:

(1) 8 (2) 10

(3) 4 (4) 6

17. A merchant has 1000 kg of sugar, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity (in kg.) sold at 18% profit is:

(1) 560 (2) 600

(3) 400 (4) 640

18. A sum of money becomes Rs. 13, 380 after 3 years and Rs. 20, 070 after 6 years on compound interest. The sum (in Rupees) is:

(1) 8800 (2) 8890

(3) 8920 (4) 9040

19. A well with 14 m inside diameter is dug 10 m deep. Earth taken out of it, has been evenly spread all around it to a width of 21m to form an embankment. The height (in metres) of the embankment is:

(1)  $\frac{1}{2}$  (2)  $\frac{2}{3}$

(3)  $\frac{3}{4}$  (4)  $\frac{3}{5}$

20. A rectangular carpet has an area of 120 sq metres and a perimeter of 46 metres. The length of its diagonal (in metres) is:

(1) 11 (2) 13

(3) 15 (4) 17

#### ANSWERS

1. (4), 2. (2), 3. (1), 4. (4), 5. (2) 6. (3), 7. (1), 8. (3), 9. (2), 10. (2) 11. (1), 12. (1), 13. (3), 14. (2), 15. (1) 16.  
(4), 17. (2), 18. (3), 19. (2), 20. (4)