Statement Test (2)

1. Two trains of same length are running in parallel tracks in the same direction with speed 60 km/hr and 90 km/hr respectively. The latter completely crosses the former in 30 seonds. The length of each train (in metres) is

1.125 2.150 3.100 4.115 5.None

2. A bag contains certain number of coins of different denominations. The ratio of the number of Rs. 1 coins to Rs. 2 coins is 5 : 7, respectively and the ratio of number of Rs. 2 coins to Rs. 5 coins is 7 : 6 respectively. Find the total value of the Rs. 5 coins, if the total value of the Rs. 1 coins in the bag is Rs. 15.

1.Rs. 180 2.Rs. 90 3.Rs. 45 4.Rs. 115 5.None

3. A metro travelling at 72 km/hr crosses another metro of length equivalent to five-sixth of its own length travelling in opposite direction at 60 km/hr in 9 seconds. Find the length of the second metro?

1.110 2.120 3.130 4.140 5.150

4. P, Q and R investing Rs. 18000, Rs. 24000 and Rs. 30000 respectively. After 4 months, P withdraws one-third of the amount and Q invested Rs. 16000 more. And after 3 months, R withdraw three-fifth of the amount. Find the total profit at the end of the month, if the share of Q is Rs. 52000?

1.Rs. 106733 2.Rs. 106350 3.Rs. 506750 4.Rs. 106000 5.Rs. 106750

5. Four examiners can examine a certain number of answer papers in 10 days by working for 5 hours a day. for how many hours in a day would 2 examiners have to work in order to examine twice the number of answer papers in 20 days?

1.10 2.15 3.20 4.25 5.30

6. Akil, Brahma and kannan together have Rs. 33250. If 3/7th of Akil's amount is equal to 2/3rd of Brahma's amount and 1/4th of Brahma's amount is equal to 5/8th of kannan's amount, then how much amount does Akil have?

1. Rs. 17000 2. Rs. 47500 3. Rs. 17500 4. Rs. 27500 5. Rs. 15600

7. A yacht can sail 55 km downstream in 66 min. The ratio of the speed of the yacht in still water to the speed of the stream is 4: 1. How much time will the yacht take to cover 72 km upstream?

1.1 hr 24 m 2.2hr 24 m 3.5 hr 20 m 4.6 hr 32 m 5.1 hr 15m

8. 5 years ago, the age of Mayur and 7 years hence, the age of Sumain is in the ratio of 1: 2. 5 years hence, the age of Mayur and Sumain is in the ratio of 15: 19. Find the present age of Sumain?

1.31 2.32 3.33 4.34 5.35

9. The first class of Dal priced at Rs. 52/kg is mixed with another variety of Dal, which is in the ratio of 3 : 4. The mixed variety of Dal is priced at Rs. 60/kg. Find the price of second variety of Dal?

1.60 2.62 3.64 4.66 5.68

10. Four Partners distributed a sum of Rs 44352 among themselves. 1st got 3/8th of total amount. 2nd got 1/6 th part of the remaining amount and the remaining amount was divided between 3 and 4 in the ratio 3 : 2. The amount received by 4 is

1.9240 2.9040 3.5240 4.6740 5.9200

11. Nithish can complete 60% of the work in9 days and Nithish and Kamalesh together can complete half of the work in 4.5 days. If Nithish, Kamalesh and Vijilesh together can complete 40% of the work in 3 days and they are gets the total wages is 1200, then what is the wage of Kamalesh?

1.100 2.200 3.300 4.400 5.500

12. Ratio of the ages of Prem and Prajesh is 3:8 and after 5 years the ratio of the ages of Prajesh to Pranshu is 7:5. If the sum of the ages of Prem, Prajesh and Pranshu is 32 years, then what is the present age of Prem?

1.5 2.6 3.7 4.8 5.9

13. Person1 lend Rs.X and obtained Rs. 780 as interest at 13% per annum for 3 years.Person2 lend Rs.Y and obtained Rs. 1020 as interest at 17% per annum for 2 years. Then find the simple interest obtained on x + y for 6 years at 7% per annum.

1.2000 2.2100 3.2200 4.2300 5.2400

14. M scored 45% marks and failed by 18 marks. N scored 54% marks and get 27 marks more than the passing marks. What is the score of P in the same examination, who secured 75 % marks?

1.325 2.355 3.375 4.425 5.435

15. A motorist bought two bikes Rs.2400 each. He sell one at 10% profit and another at x% loss in the whole transaction there is no profit or loss, and then find the value of 'x'

1.10 2.15 3.20 4.25 5.30

16. The sum of lengths of Sadhapthi express and Rajdhani express is 640 m. The speed of train Sadhapthi to that of Rajdhani is in the ratio of 3 : 4. The time taken by Sadhapthi express and Rajdhani express to cross an electronic pole is in the ratio of 4 : 5. Find the difference between the length of the two expresses?

1.120 2.140 3.160 4.180 5.200

17. The speed of the ship in still water is 36 km/hr and the speed of stream is 12 km/hr. The time taken by ship to travel from A to B downstream is 3 ½ hours less to travel from B to C upstream. If the distance between A to B is 24 km more than the distance between B to C, then find the distance between A to B?

1.200 2.145 3.210 4.216 5.234

18. Ibrahim invests Rs.4800 at simple interest for 4 years and Ishan invests Rs.3200 at simple interest for 5 years. If both of them invest their money for same rate of interest, the difference between the interest amounts received by them is Rs.160, find the rate of interest per annum?

1.3 2.4 3.5 4.6 5.7

19. 8 Males and 6 Females can do a work in 12 days. 10 males and 6 females can do the same work in 10 days. How long will 12 males and 8 females can take to do the work?

1.7 2/11 2.5 2/11 3.10 2/11 4.8 2/11 5. 4 2/11

20. A box contains x+4 pink chocolates, 6 white and 8 brown colour chocolates; if two chocolates are taken random and the probability of getting both are white colour chocolates is 5/92, then find the difference between the no. of pink colour chocolates and the no. of brown colour chocolates.

1.2 2.3 3.4 4.5. 5.6

21. Average ages of 5 men M1, M2, M3, M4 and M5 is 38 years. Ratio of the ages of M1 to M3 is 3:4 and after 5 years the ratio of the ages of M2 to M4 becomes 2: 3. If the difference between the ages of M1 and M2 is 2 years, then what is the present age of M5?

1.13 2.45 3.66 4.67 5.We cannot find the answer.

22. Ratio of the length to breadth of the rectangular board is 2: 1. If Rs.1440 is required to paint the board at the rate of Rs.5 per square meter, then what is the difference between the length and breadth of the rectangular board?

1.12 2.13 3.14 4.15 5.16

23. The average ages of the group of students is 20 years and one new student joined , then the average age of the group is increased by 1 years. If the initial number of students from the group is 28, what is the age of new student?

1.45 2.46 3.47 4.48 5.49

1. Correct Option: A

When two trains cross each other, they cover distance equal to the sum of their lengths with relative speed.

Let's take length of each train = x, total length of both trains = 2x, Crossing time = 30 sec.

Relative speed = 90 – 60 = 30 km/hr

$= \frac{30 \times 5}{18} = \frac{25}{3}$ m/sec.

∴ Total length = Time × Relative speed

$\Rightarrow \quad 2x = \frac{30 \times 25}{3} \Rightarrow \frac{10 \times 25}{2} = 125$ m.

2. Correct Option: B

Ratio of the number of coins of denominations Rs. 1 : Rs. 2 : Rs. 5 = 5 : 7 : 6

Let, the number of coins of Rs. 1, Rs. 2 and Rs. 5 in the bag be 5x, 7x and 6x.

Since, the total value of Rs. 1 coin in the bag is Rs. 15

So, the number of coins of Rs. 1 in a bag = 15

5x = 15 , ⇒ x = 3

Therefore, number of Rs. 5 coins in the bag = 6x = 18

So, required value of Rs. 5 coins = 6 × 3 × 5 = Rs.90

3. Option E

Let the length of the first metro be x,

So, the length of second metro = (5/6) * x = 5x/6

According to the question,

[x + (5x/6)] / [(72 + 60) * (5/18)] = 9 [11x/6] / [132 * (5/18)] = 9

x = 180

Length of second metro = (5x/6) = (5/6) * 180 = 150 m

4. Option E

[18000 * 4 + 18000 * (2/3) * 8] : [24000 * 4 + 40000 * 8] : [30000 * 7 + 30000 * (2/5) * 5]= > [72000 + 96000] : [96000 + 320000] : [210000 + 60000]= > 168000 : 416000 : 270000

= > 84 : 208 : 135

Q's share = 208's = 52000

1's = 250

Total profit = 427's = Rs. 106750

5. Option A

M1 * D1* H1 / W1 = M2 * D2* H2 / W2

M1 = 4 D1= 10 H1= 5

W1 = 1 M2 =2 D2 = 20

H2 = ? W2= 2

4*10 *5/1 = 2* 20 *H2/2

=>H2= 10H

6. Option C

A kil+ Brahma + kannan = Rs. 33250

(3/7)* A = (2/3)* B

(A/B) = (2/3) * (7/3) = 14/9

(1/4)* B = (5/8)* k

(B/k) = (5/8) * (4/1) = 5/2

The ratio of A, B and k = 70: 45: 18

133's = 33250

1's = 250

70's = Rs. 17500

7. Option B

Speed of downstream = D/T = 55/(66/60) = 55*(60/66) = 50 km/hr

The ratio of the speed of the yacht in still water to the speed of the stream

= > 4: 1 (4x, x)

5x = 50

X = 10

Speed of upstream = 4x – x = 3x = 30 km/hr

Distance = 752 km

Time = D/S = 72/30 = 2 2/5 hr = 2 hours 24 mins

8. Option C

5 years ago, the age of Mayur and 7 years hence, the age of Sumain is in the ratio = 1 : 2 (x, 2x)

Present age of Mayur and Sumain = x + 5, 2x – 7

5 years hence, the age of Mayur and Sumain is in the ratio = 15 : 19

According to the question,

= > (x + 5 + 5) / (2x – 7 + 5) = (15/19)

= > (x + 10) / (2x – 2) = (15/19)

= > 19x + 190 = 30x – 30

= > 11x = 220

= > x = 20

The present age of sumain= 2x – 7 = 33 years

9. Option D

(x – 60) / 8 = 3/4

x – 60 = 6

x = 66

The price of second variety of Dal = Rs. 66/Kg

10. Option A

1's share = 3/8 * 44352=16632

Remaining amount = (44352 – 16632) = 27720

2's share = 4620

Remaining amount=27720-4620=23100

share of 4=23100*2/5=9240

11. Option D

N = 100/60 * 9 = 15 days

N + K = 100/50 * 4.5 = 9 days

N = 1/9 – 1/15 = 1/22.5 days

N + K + V = 100/40 * 3 = 7.5 days

V = 1/7.5 – 1/9 = 1/45

Work ratio of N, K and V = 1/15:1/22.5:1/45

= 3:2:1

K's wage = 2/6 * 1200 = Rs.400

12. Option B

prem/prajesh = 3/8

Prem + Prajesh + Pranshu = 32

(Prajesh + 5)/(Pranshu + 5) = 7/5

7Pranshu+ 35 = 5Prajesh + 25

3/8 Prajesh + prajeash + (5Prajesh – 10)/7 = 32

117Prajesh = 1872

Prajesh = 16 years

Prem = 3/8 * 16 = 6 years

13. Option B

SI = pnr/100

780 = x * 3 * 13/100

x = 2000

1020 = y * 2 * 17/100

y = 3000

Required interest = (2000 + 3000) * 7/100 * 6

= 2100

14. Option C

= > 45 % of total marks + 18 = 54 % of total marks – 27

= > 18 + 27 = (54 – 45) % of total marks
= > 45 = 9 % of total marks
= > Total marks = 45*(100/9) = 500
P's mark = (75/100)*500 = 375

15. Option A

2400*110/100+2400*(100-x)/100=4800
=>2400*(100-x)/100=4800-2640
Simplify the above equation, we get x=10%

16. Option C

Let the length of Sadhapthi express be x m,
So, the length of Rajdhani express = 640 – x
The speed of Sadhapthi to that of Rajdhani is in the ratio = 3 : 4 (3y, 4y)
Time = Length of train / Speed
4 = x / 3y
x = 12y -> (1)
(640 – x) / 4y = 5
640 – x = 20y
640 – 12y = 20y
640 = 32y
y = 20
The length of Sadhapthi = x = 12 * 20 = 240 m
The length of Rajdhani = 640 – x = 640 – 240 = 400 m
Required difference = 400 – 240 = 160 m

17. Option D

The speed of downstream = 36 + 12 = 48 km/hr
The speed of upstream = 36 – 12 = 24 km/hr
Let the distance between B to C be x km,
The distance between A to B = (x + 24) km
Given,
x / 24 – (x + 24) / 48 = 7/2
(2x – x – 24) / 48 = 7/2
x – 24 = 168
x = 192
The distance between A to B = x + 24 = 192 + 24 = 216 km

18. Option C

SI = P * N * R/100
4800 * 4 * R/100 – 3200 * 5 * R/100 = 160
192R – 160R = 160
32R = 160
R = 5%

19. Option D

Total work = (male (or) female) * days
Work equal. So,
(8 m + 6 f) * 12 = (10 m + 6 f) * 10
48 m + 36 f = 50 m + 30 f
6 f = 2 m
3 f = 1 m
8 m + 6 f = 24 f + 6 f = 30 f
12 m + 8 f = 36 f + 8 f = 44 f
Female days
30 12
44 ?
(30 * 12) = (44 *x)
x = (30 * 12) / 44 = 8 2/11 days

20.Option A

Given,
6c2/(x+18)c2=5/92
X2+35x-246=0
we get x=6
Required difference = 10-8=2

21. Option E

M1 + M2 + M3 + M4 + M5 = 190 years
M1/M3 = 3/4
M2 + 5/M4 + 5 = 2/3
2M4 + 10 = 3M2 + 15
2M4 – 3M2 = 5
We cannot find the answer.

22. Option A

Area of the board = l * b
2x * x = 1440/5
x = 12 m
Length = 2 * 12 = 24 m
Breadth = 12 cm
Difference = 24 – 12 = 12 cm

23. Option E

Total age of the group = 20 * 28 = 560
New total age of the group = 29 * 21 = 609
New student age = 609 – 560 = 49 years