Statement Test 7

1.) Rohit borrowed Rs. 6000 at 5% p.a. simple interest for 2 years. After that he invests it in a scheme which offers 7 ¼% p.a for 2 years. Find the profit of Rohit in the transaction per year.
A) Rs 320 B) Rs 270 C) Rs 195 D) Rs 135 E) Rs 120

2.) A man can row at 15 km/hr in still water. If the velocity of current is 9 km/hr and it takes him 3 hours to row to a place and come back, how far is the place?
A) 26.2 l B) 20.3 l C) 14.4 l D) 18.4 l E) 15.2 l

3.) Twenty women can complete a work in 12 days and Twenty-four children can complete the same work in 15 days. How many days will thirty women and eighteen children take to complete the work?
A) 50/3 days B) 40/7 days C) 54/7 days D) 34/5 days E) 38/9 days

4.) Can A contains 20% water and rest milk. Can B contains 40% water. How much milk should be taken from both the cans and mix in can C to get 15 litres of milk such that the ratio of water to milk in can C is 3 : 7?
A) 5.5 l, 9.5 l B) 9 l, 6 l C) 7 l, 8 l D) 7.5 l, 7.5 l E) None of these

5.) The average age of 10 men increases by 1.5 years when a new person comes in place of one of them whose age is 34 years. What is the age of the new person?
A) 51 B) 48 C) 38 D) 42 E) 49

6.) In a box, there are 6 black, 4 blue and 2 red marbles. One marble is picked up randomly. What is the probability that it is neither black nor red?
A) 1/3 B) 2/3 C) 2/5 D) ¾ E) 3/7

7.) A book seller sold a book at Rs. 56 in such a way that his percentage profit is same as the cost price of the book. If he sells it at twice the percentage profit of its previous percentage profit then new selling price will be?
A) Rs. 72 B) Rs. 32 C) Rs. 42 D) Rs. 62 E) None of these

8.) A circular road runs round a circular playground. If the difference between the circumferences of the outer circle and the inner circle is 132 metres, then what is the width of the road? A) 15 m B) 19 m C) 17 m D) 21 m E) None of these

9.) In a class, the average age of some boys is 16 years, and average age of 16 teachers is 56 years. If the average age of the combined group of all the teachers and boys is 20, then the number of students is
A) 156 B) 144 C) 136 D) 88 E) 168

10.) If the CI on a certain sum for 2 yrs at 10% per annum is Rs. 3150, what would be the SI on same rate for same time? A) 2500 B) 3000 C) 2800 D) 2200 E) None

11.) A student scored 23% of maximum marks and failed by 23 marks. But if he scores 43% of the marks in the same exam, he passes by 17 marks. What is the maximum marks of the exam? A) 250 B) 220 C) 200 D) 180 E) 300

12.) If the price of sugar is increased by 20%, its expenditure gets decreased by 25%. What is the net effect on the total sale?
A) 10% increase B) 10% decrease C) 15% increase D) 5% decrease E) no effect

13.) Two trains having equal speed take 10 seconds and 15 seconds respectively to cross a 250 meter long bridge. If the length of second train is 150 meters more than the first train, then find the speed of the trains?
A) 30km/h B) 75km/h C) 108km/h D) 115km/h E) 45km/h

14.) Ravi sold an article at a gain of 1212%. If he had sold at ₹22.50 more, he would have gained 25%. What was the cost price of the article?
A. ₹162 B. ₹140 C. ₹196 D. ₹180 E. None of these

15.) A vessel contains liquid P and Q in the ratio of 5:3. If 16 litres of mixture is removed and the same quantity of liquid Q is added to it the ratio became 3:5. What quantity does the vessel hold?
A. 35 litres B. 45 litres C. 40 litres D. 50 litres E. None of these

16.) Rohit's father was 35 years old when Rohit was born. His mother was 26 when his sister, who is 4 years younger than him, was born. What is the difference between the age of Rohit's father and that of his mother?
A. 15 years B. 11 years C. 13 years D. 9 years E. None of these

17.) The ratio of the speed of the boat in still water to the speed of stream is 5:2. If 53.2km is travelled downstream in 1.9 hours then find the difference between the speed of the boat in still water to the speed of the stream (in kmph).
A. 12 B. 16 C. 19 D. 15 E. 10

18.) The interest earned on an amount after 2 years at 10% pa compounded annually is ₹609. Find the interest earned on the same amount after 3 years at 12% pa at simple interest. A. ₹1465 B. ₹1044 C. ₹1275 D. ₹1750 E. None of these

19.) In place of 17% profit an article is sold at 40% profit and the seller gets ₹82.80 more. Find the selling price of the article if it was sold at 20% profit (in ₹).
A. 530 B. 442 C. 398 D. 432 E. None of these

20.) A and B working alone can do a work in 18 days and 12 days respectively. They started to work together but B left after some time and A finished the remaining work in 8 days. After how many days from the start did B leave the work?
A. 3 days B. 4 days C. 6 days D. 7 days E. None of these

21.) Daughter is 20% of her father's age. If after 5 years she will be 25% of her father's age then find the present age of her brother who is 11yrs elder than her.
(a)24yrs (b)25yrs (c)26yrs (d)27yrs (e)None

22.) A retailer marks up an article 60% above its cost price and earns Rs 325 after giving a discount of 25% . If he would have given a discount of 20% instead of 25% then find his new profit.
(a)Rs. 710 (b)Rs. 615 (c)Rs. 525 (d)Rs. 455 (e)None

23.) A seller sells two articles at Rs 1694. If on one article he gains 15% and on other article he losses 20% then find the overall gain or loss percent.
(a)10% (b)8% (c)12.5% (d)16.66% (e)None

24.) A, B , and C enter into a partnership with investment Rs.28000, Rs. 35000, and Rs 56000 respectively. After 6 months A Added 1/2 and C withdrew 1/4 of their respective investment . Find the share of B after 1 year if total profit earned is Rs. 3740. (a)Rs. 1210 (b)Rs. 1500 (c)Rs. 1100 (d)Rs. 1025 (e)None

25.) X and Y invested in Rs 5700 and Rs 13300 respectively for 9months and 5months respectively then find the share of Y if difference between profit share of X and Y is Rs. 1672. (a)Rs. 7010 (b)Rs. 7315 (c)Rs. 6820 (d)Rs.7225 (e)None

26.) Ajay and Bingo can complete a work in 19days working together. If Bingo can alone complete the work in 114 days then calculate the time taken by Ajay to finish the same work alone.
(a)12 (3/4) days (b)15 (2/5) days (c)22 (4/5) days (d)25 (2/7) days (e)None

27.) A tap can fill a cistern in 15hrs. If after 1/3 of the tank is filled , four more similar taps are opened also , then find the total time taken to completely fill the cistern.
(a)10hr (b)7hr (c)9hr (d)15hr (e)None

28.) Two vessels contain milk and water mixed respectively in the ratio 4:3 and 3:1. Find the ratio in which these two mixtures should be mixed to get a new mixture in which the ratio of milk and water is 5:3. (a)6:7 (b)9:5 (c)7:3 (d)4:7 (e)None

1. Option D
Solution:
Profit in 2 years = [6000 × 29/4 × 2/100 – 6000 × 5 × 2/100] = 870 – 600 = Rs 270
So profit per year = 270/2 = Rs 135
2. Option C
Solution:
Distance = time × $[B^2 – R^2]$/ 2 × B
= 3 × $[15^2 – 9^2]$/ 2 × 15 = 14.4 km
3. Option B
Solution:
20 w in 12 days, so 30 w in 20×12/30 = 8 days
24 c in 15 days, so 18 c in 24×15/18 = 20 days
So they will complete the work in 20×8/[20+8] = 40/7 days
4. Option D
Solution:
Milk in can A is 80% or 80/100 = 4/5
Milk in can B is 60% or 60/100 = 3/5
Milk in final can C = 7/(3+7) = 7/10
So by Alligation method
4/5 3/5
. 7/10
1/10 1/10
which gives 1 : 1
so milk from can A is 1/2 × 15 = 7.5 l
5. Option E
Solution:
Total age increased = 10 × 1.5 = 15 years
So age of new person = 34 + 15 = 49 years
6. Option A
Solution:
Neither black nor red means the ball should be blue
So probability = $^4C_1/^{12}C_1$ = 4/12 = 1/3
7. Option A
Solution:
CP = x
SP = x + (x * x)/100 = 56
x^2 + 100x – 5600 = 0
x = 40
SP = 40 + (40 * 80)/100 = Rs. 72
8. Option D
Solution:
Width of the Road = R – r
2πR – 2πr = 132
R – r = 132 * (7/44) = 21 m
9. Option B
Solution –
Use allegation method
number of boys 'x' : number of teacher'16'
. 16 56
. 20
. (56-20)=36 (20-16)=4
. So 36/4 = 9/1
Now, x/16= 9/1, x=144
10. Option B
Solution –
Let principal = Rs x
CI for 2years in % = 21% (using successive method)
21% of x = 3150
x = 15000
S.I = 15000*2*10/100 = Rs.3000
11. Option C
Solution:
Let, maximum marks = x
(43-23)% of x = (23+17)
20% of x = 40
Solving we get, x= 200
12. Option B
Solution –
Use successive method
20 + (-25) + (20)(-25)/100 = -10
13. Option C
Solution –
Let, length of first train = x
(x + 250)/10 = (x + 150 + 250)/15
Solving, we get x=50
Speed = 300/10 or 450/15 = 30m/s
Convert this speed into km/h, 30*18/5 = 108km/h
14. D

13. CP = 8x

SP = 9x

New SP = 10x

10x− 9x = x

x= 22.5

So, CP = 22.5 x 8 = 180 ans.

15. C

15. Let the quantity of P be 5x and that of Q be 3x

Now, in 16 litres mixture

Quantity of P = $\frac{16}{8}$x5 = 10 litres

Quantity of Q = $\frac{16}{8}$x3 = 6 litres

Then, $\frac{5x-10}{3x-6+16}=\frac{3}{5}$

25x − 50 = 9x + 30

16x = 80

x= 5

Now, the total quantity of mixture = 5x + 3x = 8x = 8 x 5 = 40 litres ans.

16. C

16. When Rohit was born his father's age = 35 years

Mother was 26 when his sister was born,

4 years earlier, when Rohit was born, mother's age was = 26 - 4 = 22 years

Difference in age of father & mother = 35 - 22 = 13 years ans.

17. A

17. Speed of boat = 5x

Speed of stream = 2x

5x + 2x = $\frac{53.2}{1.9}$

7x = 28

x = 4

Difference = 5x − 2x = 3x = 3 x 4 = 12 ans

18. B

18. $10 + 10 + \frac{10 \times 10}{100}$

= 21%

21% = 609

100% = $\frac{609}{21}$ x 100 = 2900

Simple interest = $\frac{2900 \times 12 \times 3}{100}$ = ₹1044 ans.

19. D

19. Difference in profit = 40 - 17 = 23

Now, 23% = 82.80

120% = $\frac{82.80}{23}$ x 100 = ₹432 ans.

20. B

20. Total work = LCM of 18 and 12 = 36 units

Now, A can do the work = $\frac{36}{18}$ = 2 units/day

B can do the work = $\frac{36}{12}$ = 3 units/day

So, in 8 days A can do the work = 8 x 2 = 16 units

Remaining work = 36 - 16 = 20 units

Work done by A and B in $\frac{20}{3+2}=\frac{20}{5}$ = 4 days ans.

21. C

7.Solution:C

D : F

1 : 5) x 3 = 3: 15

After 5 yrs

1 : 4) x4= 4: 16

16- 15u = 1u = 5yrs

Daughter's(D) present age = 3u = 3 x 5 = 15yrs

Brother's age = 15 + 11 = 26yrs

22. D

8. Solution:D

When he gave 25% discount

CP : SP : MP

50 : 60 : 80

P = 10 u = 325

1u = 325 / 10 = Rs. 32.5

When he gave 20% discount

CP : SP : MP

50 : 64 : 80

New P = 14u = 14 x 32.5 = Rs 455.

23. B

9.Solution:B

	CP	:	SP
1st =	20	:	23
2nd =	5	:	4
	100	:	92

Hence, overall loss = 100u - 92u = 8u

Loss % = 8u / 100u x100 = 8%

24. C

10.Solution:C

A	:	B	:	C
4	:	5	:	8
x 6	:	x12	:	x6
+				+
6	:		:	6
x6	:		:	x6
5	:	5	:	7

B's share = 5/17 x 3740 = Rs. 1100

25. B

13.Solution:B

	X	:	Y
invest	3	:	7
Time	x9	:	x5
	27	:	35

35u - 27u = 8u = 1672

1u = 209

Y's share = 35u = 35 x 209 = Rs. 7315

26. C

14. Solution:C

A+B 19 6u

114u

B 114 1u

A's eff = 6u -1u = 5u

Time taken by A = 114/ 5 = 22 (4/5) days

27. B

15.Solution:B

Let the total units to be filled = 15u

The part filled by A in one hr = 1u / hr

Tap A is opened till 1/3 part is filled = 15 x 1/3 = 5u

Time taken by A to fill 5u = 5hrs

Remaining = 10u

according to question now 5 pipes are open of same efficiency

Eff (A) x 5 = 5u/hr

Time taken = 10u / 5 = 2hr

Total time taken = 5hr + 2hr = 7hr

28. C

16.Solution:C

Mix 1(milk)		Mix 2(milk)		
4/7	:	3/4		
5/8			7 :	3

Applying allegation

Hence the required ratio = 7:3.