

Statement Sheet Test – 2

- In a mixture of milk and water the proportion of water by weight was 60%. If in 50 l of mixture 10 l water was added, what would be the percentage of water?
a) 45 1/2% b) 72% c) 66 2/3% d) 35% e) None
- In an examination on which full marks were 1000. A got 20% less than B. B got 25% more than C. C got 20% less than D. If A got 400 marks, what percentage of full marks was obtained by D?
a) 56% b) 62% c) 60% d) 50% e) None
- In a group of 8 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there?
a) 520 b) 494 c) 375 d) 455 e) None
- In a test consisting of 100 questions carrying one mark each, Swetha answers 60% of the first 50 questions correctly. What percent of the other 50 questions does she need to answer correctly to score 75% on the entire test?
a) 90% b) 85% c) 80% d) 82% e) None
- A bag contains 20 ball marked 1 to 20. One ball is drawn at random. Find the probability that it is marked with a number multiple of 5 or 7.
a) 4/3 b) 1/2 c) 3/10 d) 5/6 e) None
- 24 men can complete a piece of work in 10 days and 16 women can complete the same piece of work in 20 days. What is the respective ratio between the amount of work done by 30 men in 1 day and the amount of work done by 20 women in 1 day?
a) 6:5 b) 3:1 c) 2:1 d) 4:3 e) None
- Two vessels A and B contain milk and water mixed in the ratio 5 : 4 and 2 : 3. When these mixture are mixed to form a new mixture containing half milk and half water, they must be taken in the ratio
a) 8:5 b) 9:5 c) 7:3 d) 4:1 e) None
- Out of 8000 seats in a stadium 500 were not sold. Of the tickets sold, 30% were sold at half price and the remaining tickets were sold at the full price of Rs20. The total revenue from the ticket sales was
a) Rs127500 b) Rs120000 c) Rs115000 d) Rs132500 e) None
- A travelled 1200 km by Air which formed 2/5 of his trip. 1/3 of the whole trip, he travelled by the car and the rest of the journey he travelled by train. The distance travelled by the train was
a) 950km b) 900km c) 650km d) 800km e) None
- The percentage profit earned by selling an article for Rs. 2120 is equal to the percentage loss incurred by selling the same article for Rs. 1460. At what price should the article be sold to make 30% profit?
a) Rs1755 b) Rs2327 c) Rs1945 d) Rs2125 e) None
- A man pays Rs. 6.40 per litre of milk. He adds water and sells the mixture at Rs. 8 per litre, thereby making 37.5% profit. The proportion of water to milk received by the customers is
a) 9:2 b) 12:5 c) 8:3 d) 10:1 e) None
- Two trains starting at the same time from two stations 250 km apart and going in opposite directions cross each other at a distance of 140 km from one of the stations. The ratio of their speeds is
a) 13:9 b) 9:7 c) 7:5 d) 14:11 e) None
- A water tank normally takes 10 hours to be filled by a tap but due to leakage, it takes another 2 hours. In how many hours will the leak empty a full water tank?
a) 45hours b) 52hours c) 60hours d) 40hours e) None
- A water tank has three taps A, B and C. A fills four buckets in 24 minutes, B fills 8 buckets in 1 hour and C fills 2 buckets in 20 minutes. If all the taps are opened together a full tank is emptied in 2 hours. If a bucket can hold 5 litres of water, what is the capacity of the tank?
a) 220litres b) 160litres c) 180litres d) 240litres e) None
- Susan starts working on a job and continues for 20 days and completes 42% of the work. To complete the work, he employs Sameer and together they work for 10 days and completed the work. What will be the efficiency ratio of Susan and Sameer?
A) 15:19 b) 21:37 c) 19:17 d) 22:27 e) None
- X borrowed Rs. 10,000 from his friend at 15% per annum simple interest. He lent it to Y at the same rate but compounded annually. Find his gain after two years.
a) Rs200 b) Rs185 c) Rs225 d) Rs245 e) None
- In a test, a candidate secured 420 marks out of maximum marks 'x'. If the maximum marks 'x' had been converted into 300 marks, he would have secured 252 marks. What was the maximum marks of the test?
a) 500 b) 600 c) 400 d) 700 e) None
- How many 4-letter words with or without meaning, can be formed out of the letters of the word, 'LOGARITHMS', if repetition of letters is not allowed?
a) 925 b) 5040 c) 720 d) 3055 e) None
- A container contains 30 litres of milk. From this container 3 litres of milk was taken out and replaced by water. This process was repeated further two times. How much milk is now contained by the container?
a) 21.87litre b) 23.55litre c) 24litre d) 22litre e) None
- Out of three numbers, the first is four times the second and is one third of the third. If the average of the three numbers is 221, what will be the second number?
a) 46 b) 42 c) 34 d) 39 e) None
- If A and B working separately can do a piece of work in 8 and 12 hours respectively. If they work alternatively every hour starting with A at 11 a.m., when will be the work completed?
a) 7pm b) 8.30pm c) 6pm d) 6.30pm e) None
- In how many different ways can the letters of the word 'ALLOY' be arranged?
a) 55 b) 60 c) 45 d) 68 e) None
- Two trains of equal lengths take 10 seconds and 15 seconds respectively to cross a post. If the length of each train be 120 metres, in what time will they cross each other travelling in opposite direction?
a) 15sec b) 12sec c) 20sec d) 10sec e) None

- Option C
Solution:
Milk : Water 40:60
2:3.
5—50
2—?—> 20 l
3—?—> 30l
10l water added
Then new ratio $20 / (30+10) = 20/40=1:2$.
%ge of water= $40/60 * 100$
 $=400/6=66\frac{2}{3}\%$.
- Option D
Solution:
A's Mark=400
B's Mark= $400*100/80$
 $=500$.
C's Mark= $500*100/125$
 $=400$.
D's Mark= $400*100/80$
 $=500$.
%ge = $500/1000 * 100$
 $=50\%$.
- Option B
Solution:
Atleast one boy= $12c4 - 4c4$
 $= (12*11*10*9)/(4*3*2*1) - 1$
 $=495-1$
 $=494$.
- Option A
Solution:
 $60\% \text{-----} x\%$
 $\text{-----} 75\% \text{-----}$
 $x-75 \text{-----} 15$
 $(x-75)/15 = 50/50$
 $x-75=15$
 $x=90\%$.
- Option C
Solution:
Multiple of 5 and 7 is 1, 5, 7, 10, 14, 15, 20.
Probability= $4/20 + 2/20$
 $=1/5 + 1/10$
 $=3/10$.
- Option C
Solution:
 $(24M*15)/1 = (16W*20)/1$
 $3M=4W$
 $M=4/3W$
 $30M : 20W$

- Option B
Solution:
Take milk
 $5/9 \text{-----} 2/5$
 $\text{-----} 1/2 \text{-----}$
 $(1/2-2/5) \text{-----} (5/9-1/2)$
 $1/10 : 1/18$
Required ratio 9:5.
- Option A
Solution:
Total revenue= $7500*30/100*10 + 7500*70/100*20$
 $=22500+105000$
 $=Rs127500$.
- Option D
Solution:
Total distance travelled by A be x
 $x*2/5=1200$
 $=3000\text{km}$.
Distance travelled by Car= $1/3*3000=1000$.
Distance travelled by train= $3000 - (1200+1000)$
 $=800\text{km}$.
- Option B
Solution:
Profit %ge = loss %ge
Then CP $2120+1460=3580$
 $=3580/2=Rs1790$.
100..... 1790
130 .. ? ==>Rs2327..
- Option D
Solution:
 $137.5 \text{---} 8$
 $100 \text{---} ? \text{==>} 64/11$
Milk—Water
 $6.4 \text{-----} 0$
 $\text{-----} 64/11 \text{-----}$
 $64/11 \text{---} 64/10-64/11$
Ratio $110:11=10:1$.
- Option D
Solution:
Let the speed of the train =xkm/hr and another tain=ykm/hr.
 $140/x : (250-140)/y$
 $140/x : 110/y$
 $x:y = 14:11$.
- Option C
Solution:
Time= $1/10 - 1/12$
 $=(12-10)/120$

$$=2/120=1/60$$

$$=60\text{hours.}$$

14. Option D

Solution:

A bucket can hold 5 litre.

Then A fills $4 \times 5 = 20$ litres in 24min

In 1hr A fills $20/24 \times 60 = 50$ litres

In 1hr B fills $8 \times 5 = 40$ litres

C fills $2 \times 5 = 10$ litres in 20min

In 1hr C fills $10/20 \times 60 = 30$ litres.

All 3 open it empty $50 + 40 + 30 = 120$ litres in 1 hr.

Full tank emptied in 2 hrs.

Then Capacity of the tank is $120 \times 2 = 240$ litres.

15. Option B

Solution:

Susan 20 days — 42% work

10 days — ? \Rightarrow 21% work

So total work done by susan = $42 + 21 = 63\%$.

Then Sameer's work $100 - 63 = 37\%$.

Ratio of efficiency in 10 days = 21:37.

16. Option C

Solution:

$$SI = (10000 \times 15 \times 2) / 100$$

$$= \text{Rs} 3000.$$

$$CI = 10000 \left[\left(1 + \frac{15}{100} \right)^2 - 1 \right] = 10000 \times \left(\frac{23}{20} \times \frac{23}{20} - 1 \right)$$

$$= (10000 \times 129) / 400$$

$$= \text{Rs} 3225.$$

$$\text{Gain} = 3225 - 3000$$

$$= \text{Rs} 225.$$

17. Option A

Solution:

$$420/x = 252/300$$

$$x = (420 \times 300) / 252$$

$$x = 500.$$

18. Option B

Solution:

LOGARITHMS contains 10 different letters.

Required number of words

$$= {}^{10}P_4$$

$$= 10 \times 9 \times 8 \times 7$$

$$= 5040.$$

19. Option A

Solution:

$$\text{Amount of milk left after 3 repeated process} = [30(1 - 3/30)^3] = 30 \times 9/10 \times 9/10 \times 9/10$$

$$= 21.87 \text{ litre.}$$

20. Option D

Solution:

Let 1st no be x.

$$(x + x/4 + 3x) / 3 = 221$$

$$(4x + x + 12x) / 4 = 221 \times 3$$

$$17x / 4 = 221 \times 3$$

$$x = 13 \times 3 \times 4$$

$$x = 156.$$

$$\text{Second no} = 156 / 4 = 39.$$

21. Option B

Solution:

$$A \dots \dots \dots 8 \dots \dots 3$$

$$B \dots \dots \dots 12 \dots \dots 2 \dots \dots \text{LCM} = 24$$

Alternate 2hrs 5 unit completed

8hrs = 20 unit completed.

9th hour = A complete 3 unit

Remaining 1/2hrs by B.

At 8.30pm the work completed.

22. Option B

Solution:

$$\text{No of ways} = 5!$$

$$= 60.$$

23. Option B

Solution:

$$\text{Speed of the first train} = 120/10 = 12 \text{ m/sec.}$$

$$\text{Speed of the second train} = 120/15 = 8 \text{ m/sec.}$$

$$\text{Relative speed} = (12 + 8) = 20 \text{ m/sec.}$$

$$\text{Time} = (120 + 120) / 20 = 12 \text{ sec.}$$

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