

Set-1

1. **The ratio of the present age of Bala to that of Arnav is 3 : 11. Arnav is 12 years younger than Rahim. Rahim's age after 7 years will be 85 years.**

Quantity I: The present age of Bala's father, who is 25 years older than Bala

Quantity II: Rahim's present age

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I ≥ Quantity II
- D. Quantity I ≤ Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

$$11x = 85 - 7 - 12$$

$$x = 6$$

Present age of Bala = 18

Present age of Bala's father = 18 + 25 = 43; Rahim's present age = 78

2. **Mr. Ramesh bought two watches which together cost him Rs.440. He sold one of the watches at a loss of 20% and the other one at a gain of 40%. The selling price of both**

watches are same.

Quantity I: SP and CP one of the watches sold at a loss of 20%

Quantity II: SP and CP one of the watches sold at a profit of 40%

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

D. Quantity I \leq Quantity II

Explanation:

$$80/100 * x = 140/100 * y$$

$$x = 7/4y$$

$$x + y = 440$$

$$7/4 y + y = 440$$

$$y = 160 ; x = 280$$

3. **Ravi, Hari and Sanjay are three typists, who working simultaneously, can type 228 pages in four hours. In one hour, Sanjay can type as many pages more than Hari as Hari can type more than Ravi. During a period of five hours, Sanjay can type as many passages as Ravi can, during seven hours.**

Quantity I: Number of pages typed by Ravi

Quantity II: Number of pages typed by Hari

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Let Ravi, Hari and Sanjay can type x , y , and z pages respectively in 1 h.

Therefore, they together can type $4(x + y + z)$ pages in 4 h

$$\therefore 4(x + y + z) = 228$$

$$\Rightarrow x + y + z = 57 \text{(i)}$$

Also, $z - y = y - x$

i.e., $2y = x + z$ (ii)

$$5z = 7x \text{(iii)}$$

From Eqs. (i) and (ii), we get

$$3y = 57$$

$$\Rightarrow y = 19$$

From Eq. (ii), $x + z = 38$

$$x = 16 \text{ and } z = 22$$

4. **The length of a rectangle wall is $3/2$ times of its height. The area of the wall is 600m^2 .**

Quantity I: Height of the wall

Quantity II: Length of the wall

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

$$\text{length} = 3x$$

$$\text{height} = 2x$$

$$\text{Area of the wall} = 3x * 2x = 6x^2 = 600$$

$$\text{Length} = 30 \ \& \ \text{Height} = 20$$

5. **Quantity I: $x^2 - 26x + 168 = 0$**

Quantity II: $y^2 - 29y + 210 = 0$

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

D. Quantity I \leq Quantity II

Explanation:

$$x^2 - 26x + 168 = 0$$

$$x = 12, 14$$

$$y^2 - 29y + 210 = 0$$

$$y = 14, 15$$

6. **Quantity I: $x^2 - 21x + 110 = 0$**

Quantity II: $y^2 - 18x + 80 = 0$

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

C. Quantity I \geq Quantity II

Explanation:

$$x^2 - 21x + 110 = 0$$

$$x = 10 \ 11$$

$$y^2 - 18y + 80 = 0$$

$$y = 10 \ 8$$

7. **A Cistern has an inlet pipe and outlet pipe. The inlet pipe fills the cistern completely in 1 hour 20 minutes when the outlet pipe is plugged. The outlet pipe empties the tank completely in 6 hours when the inlet pipe is plugged.**

Quantity I: X = Inlet Pipe Efficiency

Quantity II: Y = Outlet Pipe Efficiency

A. Quantity I > Quantity II

- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Inlet pipe Efficiency = $100/(8/6) = 75\%$

Outlet pipe Efficiency = $100/(6) = 16.66\%$

8. **Out of 14 applicants for a job, there are 6 women and 8 men. It is desired to select 2 persons for the job.**

Quantity I: Probability of selecting no woman

Quantity II: Probability of selecting at least one woman

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Man only = $8C_2 = 14$

Probability of selecting no woman = $14/91$

Probability of selecting at least one woman = $1 - 14/91 = 77/91$

9. **A basket contains 6 White 4 Black 2 Pink and 3 Green balls.**

If four balls are picked at random,

Quantity I: Probability that at least one is Black.

Quantity II: Probability that all is Black.

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Total Balls = 15

Probability = $\frac{11C4}{15C4} = \frac{22}{91}$

One is black = $1 - \frac{22}{91} = \frac{69}{91}$

10. **Two pipes A and B can fill a tank in 12 hours and 18 hours respectively. The pipes are opened simultaneously and it is found that due to leakage in the bottom of the tank it took 48 minutes excess time to fill the cistern.**

Quantity I: Due to leakage, time taken to fill the tank

Quantity II: Time taken to empty the full cistern

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Work done by the two pipes in 1 hour = $(1/12)+(1/18) = (15/108)$.

Time taken by these pipes to fill the tank = $(108/15)$ hrs = 7 hours 12 min.

Due to leakage, time taken to fill the tank = 7 hours 12 min + 48 min = 8 hours

Work done by two pipes and leak in 1 hour = $1/8$.

Work done by the leak in 1 hour = $(15/108)-(1/8)=(1/72)$.

Leak will empty the full cistern in 72 hours.

Set-2

1. **The respective ratio between the present age of Mohan and David is 5:x. Mohan is 9 years younger than Preethi. Preethi's age after 9 years will be 33 years. The difference between David's and Mohan's age is same as the present age of Preethi.**

Quantity I: Mohan's present age

Quantity II: The value of x

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Preethi's age after 9 years = 33 years

Preethi's present age = $33 - 9 = 24$ years

Mohan's present age = $24 - 9 = 15$ years

David's present age = $15 + 24 = 39$ years

Ratio between Mohan and David = $15 : 39 = 5 : 13$

$X = 13$

2. **Sri invested some amount(x) at the rate of 12% simple interest and a certain amount(y) at the rate of 10% simple interest. He received yearly interest of Rs.140. But if he had interchanged the amounts invested, he would have received Rs.4 more as interest.**

Quantity I: The value of x

Quantity II: The value of y

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Amount invested at 12% = Rs. x

Amount invested at 10% = Rs. y

$$140 = x \cdot 12 \cdot \frac{1}{100} + y \cdot 10 \cdot \frac{1}{100}$$

$$12x + 10y = 14000 \text{ -(i)}$$

$$144 = x \cdot 10 \cdot \frac{1}{100} + y \cdot 12 \cdot \frac{1}{100}$$

$$10x + 12y = 14400 \text{ -(ii)}$$

$$x = 545.45; y = 745.45$$

3. **Ajith can do a piece of work in 10 days, Bala in 15 days.**

They work together for 5 days, the rest of the work is finished by Chand in two more days. They get Rs. 6000 as wages for the whole work.

Quantity I: What is the sum of Rs.100 and the daily wage of Bala?

Quantity II: What is the daily wage of Chand?

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

E. Quantity I = Quantity II or relation cannot be established

Explanation:

Ajith's 5 days work = 50%

Bala's 5 days work = 33.33%

Chand's 2 days work = 16.66% $[100 - (50 + 33.33)]$ Ratio of contribution of work of Ajith, Bala and Chand = 3 : 2 : 1

Ajith's total share = Rs. 3000

Bala's total share = Rs. 2000

Chand's total share = Rs. 1000

Ajith's one day's earning = Rs.600

Bala's one day's earning = Rs.400

Chand's one day's earning = Rs.500

4. **A Bike is available at 40% discount at showroom "A" and the same is available at only 25% discount at showroom "B". Mr. Arun has just sufficient amount of Rs. 60,000 to purchase it at showroom "A".**

Quantity I: Difference between Marked Price and SP at Show Room "A"

Quantity II: Difference between Marked Price and SP at Show Room "B"

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Let the marked price be x .

Cost price (CP) = 40 % discount on MP = $0.6y = 60000$

$\Rightarrow y = \text{Rs.}100000$ MP

SP at Show Room "A" = Rs. 60000

SP at Show Room "B" = $100000 \times 0.75 = 75000$

Difference between Marked Price and SP at Show Room "A" =
40000

Difference between Marked Price and SP at Show Room "B" =
25000

5. **Quantity I: $(x - 18)^2 = 0$**

Quantity II: $y^2 = 324$

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

C. Quantity I \geq Quantity II

Explanation:

$$x^2 - 36x + 324 = 0$$

$$x = 18, 18$$

$$y^2 = 324$$

$$y = \pm 18$$

6. **A Cistern has an inlet pipe and outlet pipe. The inlet pipe fills the cistern completely in 1 hour 20 minutes when the outlet pipe is plugged. The outlet pipe empties the tank completely in 4 hours when the inlet pipe is plugged.**

Quantity I: Inlet pipe Efficiency

Quantity II: 3 times of Outlet pipe Efficiency

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

E. Quantity I = Quantity II or relation cannot be established

Explanation:

Inlet pipe Efficiency = $100/(8/6) = 75\%$

Outlet pipe Efficiency = $100/(4) = 25\%$

3 times of Outlet pipe Efficiency = 75%

7. **Harish took an educational loan from a nationalized bank for his 2 years course of MBA. He took the loan of Rs.5 lakh such that he would be charged at 7% p.a. at CI during his course and at 9% CI after the completion of the course. He returned half of the amount which he had to be paid on the completion of his studies and remaining after 2 years.**

Quantity I: He returned half of the amount which he had to be paid on the completion of his studies

Quantity II: He returned remaining amount after 2 years

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

$$5,00,000 * (1.07)^2 = 572450$$

$$\text{Returned amount} = 286225$$

$$\text{After two years} = 286225 * (1.09)^2 = 340063$$

8. **The average salary of the entire staff in an office is Rs 250 per month. The average salary of officers is Rs 520 and that of non-officers is Rs. 200.**

Quantity I: Number of Officers = 15

Quantity II: Number of Non-Officers

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Let the required number of non-officers = x

$$200x + 520 \times 15 = 250 (15 + x)$$

$$250x - 200x = 520 * 15 - 250 \times 15$$

$$50x = 4050$$

$$x = 81$$

9. **The perimeter of a rectangle and a square is 160 cm each. If the difference between their areas is 600 cm.**

Quantity I: Area of Square

Quantity II: Area of Rectangle

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Perimeter of rectangle = Perimeter of Square = 160

$$4a = 160 \Rightarrow a = 40$$

Area of square = 1600

$$1600 - lb = 600$$

$$lb = 1000 \text{ cm}^2$$

10. **Shree started traveling from a place A to B and Priya started traveling from a place B to A which are 576 km apart. They meet after 12 hours. After their meeting, Shree increased her speed by 2 km/hr and Priya reduced her speed by 2 km/hr, they arrived at B and A respectively at the same time.**

Quantity I: Initial Speed of Shree

Quantity II: Initial Speed of Priya

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

Sum of their speeds = Distance/time = $576/12 = 48$ kmph

Respective Speed of Shree and Priya = $(23 + 25) = 48$ kmph

Set-3

1. **Mr. Ramesh has three daughters namely Rohini, Anita and Keerthi. Rohini is the eldest daughter of Mr. Ramesh while Keerthi is the youngest one. The present ages of all three of them are square numbers. The sum of their ages after 5 years is 44.**

Quantity I: The age of Rohini and Anita after two years

Quantity II: The age of Rohini and Keerthi after four years

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Square numbers – a, b, c

$$(a + 5) + (b + 5) + (c + 5) = 44$$

$$a + b + c = 44 - 15 = 29$$

Possible values of a, b, c = 4, 9, 16 [Out of 1, 4, 9, 16, 25] The age of Rohini and Anita after two years = 29; The age of Rohini and Keerthi after four years = 28

2. **A sum of Rs. 8800 is to be divided among three brothers**

Anil, Deepak and Ramesh in such a way that simple interest on each part at 5% per annum after 1, 2 and 3 year respectively remains equal.

Quantity I: Share of Ramesh

Quantity II: Share of Anil

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

$$x \cdot 5 \cdot \frac{1}{100} = y \cdot 5 \cdot \frac{2}{100} = z \cdot 5 \cdot \frac{3}{100}$$

$$x:y:z = 6:3:2$$

$$\text{Share of Ramesh} = \frac{2}{11} * 8800 = 1600; \text{Share of Anil} = \frac{6}{11} * 8800 = 4800$$

3. **Person A sold his car to Person B at a profit of 20% and B sold it to C at a profit of 10%. Person C sold it to a mechanic at a loss of 9.09%. Mechanic spent 10% of his purchasing price and then sold it at a profit of 8.33% to Person "A" once again**

Quantity I: Selling Price of A

Quantity II: Selling Price of C

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

E. Quantity I = Quantity II or relation cannot be established

Explanation:

A:

$$CP = 100$$

$$SP = 120$$

B:

$$CP = 120$$

$$SP = 132$$

C:

$$CP = 132$$

$$SP = 120$$

Mechanic:

$$CP = 120 + 12 = 132$$

$$SP = 143$$

4. **Smallest side of a right-angled triangle is 13 cm less than the side of a square of perimeter 72 cm. The second largest side of the right angled triangle is 2 cm less than the length of the rectangle of area 112 cm² and breadth 8 cm.**

Quantity I: Six more than the side of the right-angled triangle(not the smallest)

Quantity II: The Sum of Hypotenuse of the right-angled triangle and the smallest side

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I ≥ Quantity II
- D. Quantity I ≤ Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

E. Quantity I = Quantity II or relation cannot be established

Explanation:

Side of square = $72/4 = 18$ cm

Smallest side of the right angled triangle = $18 - 13 = 5$ cm

Length of rectangle = $112/8 = 14$ cm

Second side of the right angled triangle = $14 - 2 = 12$ cm

Hypotenuse of the right angled triangle = $\sqrt{(25 + 144)} = 13$ cm

5. **Quantity I: $(x - 36)^2 = 0$**

Quantity II: $y^2 = 1296$

A. Quantity I > Quantity II

B. Quantity I < Quantity II

C. Quantity I \geq Quantity II

D. Quantity I \leq Quantity II

E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

C. Quantity I \geq Quantity II

Explanation:

$$x^2 - 72x + 1296 = 0$$

$$x = 36, 36$$

$$y^2 = 1296$$

$$y = \pm 36$$

6. **Two pipes P and Q can fill a cistern in 10 hours and 20 hours respectively. If they are opened simultaneously. Sometimes**

later, tap Q was closed, then it takes total 8 hours to fill up the whole tank.

Quantity I: x = Pipe "Q" Efficiency. y = net efficiency

Quantity II: x = Pipe "P" Efficiency. y = net efficiency

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

E. Quantity I = Quantity II or relation cannot be established

Explanation:

Pipe P Efficiency = $100/10 = 10\%$

Pipe Q Efficiency = $100/20 = 5\%$

Net Efficiency = 15%

- 7. In an office there are 40% female employees. 50% of the male employees are UG graduates. The total 52% of employees are UG graduates out of 1800 employees.**

Quantity I: Male Employees who are UG Graduates

Quantity II: Female Employees who are UG Graduates

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Total employees = 1800

female employees = 40%

male employees = 60%

50% of male employees = UG graduates = 30%

Female employees who are UG graduates = 22%

8. **Suresh spends 23% of an amount of money on an insurance policy, 33% on food, 19% on children's education and 16% on recreation. He deposits the remaining amount of Rs. 504 in bank.**

Quantity I: Amount spend on food and insurance policy together

Quantity II: Amount spend on children's education and recreation together

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

Total amount = x

Savings(%)

$$[100 - (23 + 33 + 19 + 16)]\% = 9\%$$

$$9\% \text{ of } x = 504$$

$$\Rightarrow x = 504 * 100/9 = 5600$$

Amount spend on food and insurance policy together = 56% of 5600 = Rs.3136

9. **Last year there were 610 boys in a school. The number decreased by 20 percent this year. The number of girls is 175 percent of the total number of boys in the school this year.**

Quantity I: Total number of boys in the school this year.

Quantity II: Half of total number of Girls in the school this year.

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

A. Quantity I > Quantity II

Explanation:

No of boys in a school last year = 610

No of boys in a school for this year

$$610 * 80/100 = 488$$

$$610-122=488$$

$$\text{No of girls} = 175/100 * 488 = 854 = 427$$

10. **Two persons A and B start from the opposite ends of a 450 km straight track and run to and from between the two ends. The speed of the first person is 25 m/s and the speed of other is 35 m/s. They continue their motion for 10 hours.**

Quantity I: First person speed

Quantity II: Second person speed

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or relation cannot be established

Answer & Explanation

B. Quantity I < Quantity II

Explanation:

$$\text{First person speed} = 25 \text{ m/s} * 18/5 = 90 \text{ kmph}$$

$$\text{Second person speed} = 35 \text{ m/s} * 18/5 = 126 \text{ kmph}$$

Set-4

1. Quantity I: Distance, if a man covers a distance of 22 hours. he covers first half at 15 km/hr and 2nd half at 18 km/hr
Quantity II: Distance, if a man covers a distance in three equal parts in 20 hours. He covers first part at 10 km/hr, 2nd at 15 km/hr and 3rd at 30 km/hr
- A) Quantity I > Quantity II
 - B) Quantity I \geq Quantity II
 - C) Quantity II > Quantity I
 - D) Quantity II \geq Quantity I

E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option A

Solution:

Quantity I:

$$(2 \times 15 \times 18) / 33 \times 22 = 360 \text{ km}$$

Quantity II:

Average speed will become 15 km/hr

$$\text{So distance } 15 \times 20 = 300 \text{ km}$$

I > II

2. Quantity I: Cost price, if a man reduces the selling price by Rs 12 and by this the profit of 5% converts to a loss of 2.5%
Quantity II: Cost Price, if a man increases the selling price by Rs 42 and by this the loss of 20% converts to a profit of 10%
- A) Quantity I > Quantity II
 - B) Quantity I \geq Quantity II
 - C) Quantity II > Quantity I
 - D) Quantity II \geq Quantity I
 - E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option A

Solution:

I:	CP	SP
Gain = 5% = 1/20	20	(20+1) = 21(1)
Loss = 2.5% = 1/40	40	(40-1)=39(2)

Multiply (1) by 2 to make CP same in both

So from (1) CP = 40, SP = 42

Now difference in SP = 42-39 = 3

So 3 == 12

1 == 4

So 40 == 160

II: Similarly do II part

.	CP	SP
Loss = 20% = 1/5	5	4(1)
Gain = 10% = 1/10	10	11(2)

Multiply (1) by 2 to make CP same in both

So from (1) CP = 10, SP = 8

Now difference in SP = $11 - 8 = 3$
 So $3x = 42$
 $x = 14$
 So $10x = 140$
 So $I > II$

3. Quantity I: Age of father, if age of Abhishek is $\frac{1}{6}$ th of his father's and 10 years after Abhinav's age becomes half of Abhishek's father's age.
 Quantity II: Age of father, if 5 years ago age of A's father was three times the age of A and 5 years hence his age will be double A's age.
 A) Quantity I > Quantity II
 B) Quantity I \geq Quantity II
 C) Quantity II > Quantity I
 D) Quantity II \geq Quantity I
 E) Quantity I = Quantity II or Relation cannot be established



View Answer

Option C

Solution:

I:

.....Abhishek.....Father	
.....1.....6	(1)
10 years after. Abhinav Father	
. 12	(2)

Now Abhinav is 10 years old so after 10 years he will be 20

Put in (1)

father = 40

Now $40 - 10 = 30$

II:

	A	A's father
5 years ago	1	3
5 years hence	1	2

So $3 - 2 = 1$

$1x = 10$

$3x = 30$

So $30 + 5 = 35$

$II > I$

4. Quantity I: Find amount after 4 years, if rate of interest is 20% and the principal amount is Rs 8000
 Quantity II: Find the amount after 4 years, if Rs 10,000 becomes Rs 12,000 in 2 years at compound interest.

- A) Quantity I > Quantity II
- B) Quantity I ≥ Quantity II
- C) Quantity II > Quantity I
- D) Quantity II ≥ Quantity I
- E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option E

Solution:

I: $SI = 20 \times 4 = 80\%$

$100\% = 8000$

$180\% = \text{Rs } 14400$

II.

$10000 : 12000 :: 12000 : x$

$x = 12000 \times 12000 / 10000 = \text{Rs } 14400$

II > I

5. Quantity I: Share of A, if A and B invested Rs 22000 and Rs 25000 respectively in a scheme. After half a year A reduces his investment by 50% and B reduces by 20% and they earn a profit of Rs 5200 after a year.

Quantity II: Share of A, if A and B invested Rs 30000 and Rs 35000 in a scheme. Both increase their investments by Rs 5000 after 8 months and they earn a profit of Rs 6150 after a year.

- A) Quantity I > Quantity II
- B) Quantity I ≥ Quantity II
- C) Quantity II > Quantity I
- D) Quantity II ≥ Quantity I
- E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option C

Solution:

I:

$22000 : 25000$

$*6 \qquad \qquad \qquad *6$

$=132 \qquad \qquad \qquad =150$

$11000 : 20000$

$*6 \qquad \qquad \qquad *6$

$=66 \qquad \qquad \qquad =120$

$132+66 : 150+120$

11 : 15

A's share = $11/26 * 5200 = \text{Rs } 2200$

II:

30000 : 35000
*8 : *8

=240 : =280

35000 : 40000
*4 : *4

=140 : =160

240+140 : 280+160

19 : 22

A's share = $19/41 * 6150 = \text{Rs } 2850$

So II > I

6. Quantity I: Days in which B can complete work alone, if A and B can complete work in 40 days, B and C in 20 days and C and A in 30 days.
Quantity II: Days in which B can complete work alone, if A and B can complete work in 24 days and A is 50% more efficient than B.
- A) Quantity I > Quantity II
B) Quantity I \geq Quantity II
C) Quantity II > Quantity I
D) Quantity II \geq Quantity I
E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option C

Solution:

I:

A + B = 40.....3

B + C = 20.....6(LCM = 120)

C + A = 30.....4

Total = 2 (A+B+C) = 3+6+4 = 13

So A+B+C = $13/2$

(A+B+C) - (B+C) = $13/2 - 4 = 5/2$

So B can complete work in $120/(5/2) = 48$ days

II: Efficiency A B = 3 : 2

So days = 2 3

LCM of 2 and 3 is 6

A = 2..... $6/2 = 3$

B = 3..... $6/3 = 2$

Total A+B = 3+2 = 5

So $6/5 = 24$
So $1 = 20$
So $3 = 60$
So $II > I$

7. Quantity I: speed of swimmer in still water, if he swims a distance of 36 km downstream in 6 hours and a distance of 40 km upstream in 8 hours
Quantity II: speed of swimmer in still water, if he can swim downstream at 14 km/hr and upstream at 6 km/hr.
- A) Quantity I > Quantity II
 - B) Quantity I \geq Quantity II
 - C) Quantity II > Quantity I
 - D) Quantity II \geq Quantity I
 - E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option C
Solution:

I:
Speed downstream = $36/6 = 6$ km/hr
Speed upstream = $40/8 = 5$ km/hr
in still water = $1/2 (6+5) = 5.5$ km/r
II:
 $1/2 (D+U) = 1/2 (14+6) = 10$ km/hr
 $II > I$

8. Quantity I: Marks of new student, if the average marks of 25 students is 55 and after the marks of new student also taken into consideration, average increases by 2 marks
Quantity II: Marks of new student, if the average marks of 20 students is 80 and after the marks of new student also taken into consideration, average increases by 1.5 marks
- A) Quantity I > Quantity II
 - B) Quantity I \geq Quantity II
 - C) Quantity II > Quantity I
 - D) Quantity II \geq Quantity I
 - E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option C

Solution:

$$I: 55 + 2 \times 25 = 105$$

$$II: 80 + 1.5 \times 20 = 110$$

$$II > I$$

9. Quantity I: Total surface area of cylinder whose radius is 7 cm and height is 10 cm

Quantity II: Total surface area of cuboid whose dimensions are $10 \times 12 \times 15$ cm

A) Quantity I > Quantity II

B) Quantity I \geq Quantity II

C) Quantity II > Quantity I

D) Quantity II \geq Quantity I

E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option C

Solution:

$$I: 2\pi r(r+h) = 748 \text{ cm}^2$$

$$II: 2(lb+bh+lh) = 900 \text{ cm}^2$$

10. Quantity I: x , if $6x^2 - 29x - 20 = 0$

Quantity II: y , if $6y^2 + 13y - 15 = 0$

A) Quantity I > Quantity II

B) Quantity I \geq Quantity II

C) Quantity II > Quantity I

D) Quantity II \geq Quantity I

E) Quantity I = Quantity II or Relation cannot be established

View Answer

Option B

Solution:

$$x = 5/6, 4$$

$$y = -3, 5/6$$