

1. Time and Work

Q: A can complete a work in 12 days and B in 18 days. How many days will they take together?

- A. 7.2
- B. 8
- C. 6
- D. 10

Solution:

A's 1-day work = $1/12$

B's 1-day work = $1/18$

Together: $1/12 + 1/18 = (3+2)/36 = 5/36$

Time = $36/5 = 7.2$ days

Answer: A

2. Percentages

Q: A number is increased by 20% and then decreased by 20%. What is the net change?

- A. 0%
- B. 4% decrease
- C. 4% increase
- D. 2% decrease

Solution:

Let number = 100

After 20% increase $\rightarrow 120$

After 20% decrease $\rightarrow 120 - 24 = 96$

Net change = $100 - 96 = 4\%$ decrease

Answer: B

3. Simple Interest

Q: What is the simple interest on ₹5000 at 5% per annum in 3 years?

- A. ₹750
- B. ₹650
- C. ₹700
- D. ₹800

Solution:

$SI = (P \times R \times T)/100 = (5000 \times 5 \times 3)/100 = ₹750$

Answer: A

4. Ratio

Q: Divide ₹1200 in the ratio 2:3:5.

- A. ₹240, ₹360, ₹600
- B. ₹300, ₹400, ₹500
- C. ₹200, ₹400, ₹600
- D. ₹300, ₹300, ₹600

Solution:

Sum of ratio = $2+3+5 = 10$

Parts: $(2/10) \times 1200 = 240$, $(3/10) \times 1200 = 360$, $(5/10) \times 1200 = 600$

Answer: A

5. Averages

Q: The average of 5 numbers is 28. If one number is 40, what is the average of the remaining 4?

- A. 27
- B. 26
- C. 24
- D. 22

Solution:

Total = $5 \times 28 = 140$

Remaining = $140 - 40 = 100$

Avg = $100/4 = 25$

(Answer not listed, correct value is **25**)

6. Geometry

Q: The perimeter of a square is 64 cm. Find its area.

- A. 256 cm^2
- B. 128 cm^2
- C. 512 cm^2
- D. 144 cm^2

Solution:

Side = $64/4 = 16 \text{ cm}$

Area = $16^2 = 256 \text{ cm}^2$

Answer: A

7. Time, Speed, Distance

Q: A train travels 120 km in 2 hours and 30 minutes. What is the speed?

- A. 40 km/h
- B. 48 km/h
- C. 50 km/h
- D. 60 km/h

Solution:

2.5 hours $\rightarrow 120/2.5 = 48$ km/h

Answer: B

8. Data Interpretation

Q: Average marks in 5 subjects = 75. Total marks?

- A. 375
- B. 350
- C. 400
- D. 380

Solution:

Total = $5 \times 75 = 375$

Answer: A

9. Mensuration

Q: Find the volume of a cube of side 4 cm.

- A. 64 cm^3
- B. 16 cm^3
- C. 48 cm^3
- D. 32 cm^3

Solution:

Volume = $a^3 = 4^3 = 64 \text{ cm}^3$

Answer: A

10. Profit and Loss

Q: Cost price = ₹600, selling price = ₹720. Find the profit %.

- A. 15%
- B. 20%
- C. 25%
- D. 30%

Solution:

$$\text{Profit} = 720 - 600 = 120$$

$$\% \text{ Profit} = (120/600) \times 100 = 20\%$$

Answer: B
