Problems on Trains Questions and Answers for Bank Exams Pdf

1. Two trains of lengths 120 m and 90 m are running with speeds of 80 km/hr and 55 km/hr respectively towards each other on parallel lines. If they are 90 m apart, after how many seconds they will cross each other?

a. 5.6 sec.

b. 7.2 sec.

c. 8 sec.

d. 9 sec

Ans: C

Relative speed = (80 + 55) km/hr = 135 km/hr

$$= \left(135 \times \frac{5}{18}\right) \text{m/sec} = \left(\frac{75}{2}\right) \text{m/sec.}$$

Distance covered = (120 + 90 + 90) m = 300 m.

$$\text{Required time} = \left(300 \times \frac{2}{75}\right) \text{sec} = 8 \text{ sec.}$$

2. One local and another express train were proceeding in the same direction on parallel tracks at 29 km/hr and 65 km/hr respectively. The driver of the farmer noticed that it took exactly 16 seconds for the faster train to pass by him. What is the length of the faster train?

a. 60 m

b. 120 m

c. 160 m

d. 240 m

Ans: C

Relative speed = (65 – 29) km/hr = 36 km/hr

$$= \left(36 \times \frac{5}{18}\right) \text{m/sec} = 10 \text{ m/sec.}$$

Length of faster train = (10 × 16) m = 160 m.

3. A train which is moving at an average speed of 40 km/hr reaches its destination on time. When its average speed reduces to 35 km/hr, then it

reaches its destination 15 minutes late. The distance travelled by the train, is

a. 70 km

b. 80km

c. 40 km

d. 30 km

Ans: A

Average speed of train = 40 km/h

Reach at its destination at on time

New average speed of train = 35 km/h

$$\text{Time} = 15 \text{ minutes} = \frac{15}{60} \text{ hours}$$

$$\text{Then distance travelled} = \frac{40 \times 35}{40 - 35} \times \frac{15}{60}$$

$$= \frac{40 \times 35}{5} \times \frac{15}{60} = 70 \text{ km}.$$

4. A 150 m long train is running with a speed of 68 kmph. In what time will it pass a man who is running at 8 kmph in the same direction in which the train is going?

a. 7 sec

b. 8 sec

c. 9 sec

d. 10 sec

Ans: C

Sol. Speed of the train relative to man = (68 – 8) kmph

$$= \left(60 \times \frac{5}{18}\right) \text{m/sec} = \left(\frac{50}{3}\right) \text{m/sec}.$$

Time taken by the train to cross the man

$$= \text{Time taken by it to cover 150 m at } \left(\frac{50}{3}\right) \text{m/sec} = \left(150 \times \frac{3}{50}\right) \text{sec} = 9 \text{ sec}.$$

5. Two trains 100 metres and 120 metres long are running in the same direction with speeds of 72 km/hr and 54 km/hr. In how much time will the first train cross the seconds?

a. 44 sec

b. 48 sec

c. 52 sec

d. 56 sec

Ans: A

Relative speed of the trains = (72 – 54)km/hr = 18 km/hr = $\left(18 \times \frac{5}{18}\right)$ m/sec = 5 m/sec.

Time taken by the trains to pass each other

= Time taken to cover (100 + 120) m at 5 m/sec = $\left(\frac{220}{5}\right)$ sec = 44 sec.