Boats and Streams Aptitude Questions and Answers Pdf

1. A man can row 6 Km/h in still water. If the river is running at 2 Km/h, it takes 3 hours more in upstream than to go downstream for the same distance. How far is the place?

a. 24 Km

b. 28 Km

c. 3 Km

d. None of these

Ans: A

(a) The required distance

$$= \frac{(x^2 - y^2)t}{2y} = \frac{(36-4)3}{2\times 2} = 24 \text{ Km.}$$

2. If a boat goes 7 km upstream in 42 minutes and the speed of the stream is 3 kmph, then the speed of the boat in still water is
   a. 4 .2 km / hr
   b. 9 km / hr
   c. 13 km /hr
   d. 21 km / hr -→C

   Ans:

Rate upstream $= \left(\frac{7}{42} \times 60\right)$ kmph $= 10$ kmph.

Speed of stream $= 3$ kmph.

Let speed in still water be x km / hr. Then, speed upstream $= (x - 3)$ km / hr.

$\therefore \quad x - 3 = 10 \quad$ or $\quad x = 13$ km / hr.

3. A man's speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is
   a. 8.5 km / hr
   b. 9 km/hr
   c. 10 km/hr
   d. 12.5 km/hr -→C

   Ans:

Man's rate in still water = (15 – 2.5) km / hr = 12.5 km / hr.
Man's rate against the current = (12.5 – 2.5) km / hr = 10 km / hr.

4. Speed of a boat in standing water is 9 kmph and the speed of the stream is 1.5 kmph. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is
   a. 16 hours
   b. 18 hours
   c. 20 hours
   d. 24 hours -→D

   Ans:

Speed upstream = 7.5 kmph; Speed downstream = 10.5 kmph.

$$\therefore \quad \text{Total time taken} = \left(\frac{105}{7.5} + \frac{105}{10.5}\right) \text{ hours} = 24 \text{ hours.}$$

5. The speed of a boat in still water is 15 km / hr and the rate of current is 3 km / hr. The distance travelled downstream in 12 minutes is
   a. 1.2 km
   b. 1.8 km
   c. 2.4 km
   d. 3.6 km -→D

   Ans:

Speed downstream = (15 + 3) kmph = 18 kmph.

$$\text{Distance travelled} = \left(18 \times \frac{12}{60}\right) \text{ km} = 3.6 \text{ km.}$$