Boats and Streams Questions for SSC Exams Pdf

1. Speed of a man is 19 Km/h in still water. If the rate of current is 3 Km/h, then the effective speed of the man upstream is
   a. 7 Km/h
   b. 8.5 Km/h
   c. 9 Km/h
   d. None of these -→a

   Ans:
   Speed of man in still water = 10 Km/hr
   Speed of current = 3 Km/hr
   Therefore, Speed of man upstream = 10 – 3 = 7 Km/hr.

2. A boatman goes 2Km against the current of the stream in 1 h and goes 1 Km along the current in 10 min. How long will he take to go 5 Km in stationary water?

a. 1 hour

b. 1 hour 15 minutes

c. 2 hours

d. 40 minutes

Ans: B

(b) Upstream speed = 2 Km/h

Downstream speed = 6 Km/h

$\therefore$ Speed in still water = $\frac{2+6}{2}$ = 4 Km/h

$\therefore$ Time required to go 5 Km in still water

= $\frac{5}{4}$ hours = 1 hours 15 minutes.

3. A boatman goes 2 km against the current of the stream in 1 hour and goes 1 km along the current in 10 minutes. How long will it take to go 5 km in stationary water?
   a. 40 minutes
   b. 1 hour

c. 1 hr 15 min
d. 1 hr 30 min

Ans: C

Rate downstream $= \left(\frac{1}{10} \times 60\right)$ km/hr $= 6$ km/hr; Rate upstream $= 2$ km/hr.

Speed in still water $= \frac{1}{2}(6+2)$ km/hr $= 4$ km/hr.

$\therefore$ Required time $= \left(\frac{5}{4}\right)$ hrs $= 1\frac{1}{4}$ hrs $= 1$ hr 15 min.

4. If a man rows at the rate of 5 kmph in still water and his rate against the current is 3.5 kmph, then the man's rate along the current is

a. 4.25 kmph
b. 6 kmph
c. 6.5 kmph
d. 8.5 kmph

Ans: C

Let the rate along the current be x kmph. Then, $\frac{1}{2}(x+3.5) = 5$ or $x = 6.5$ kmph.

5. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 Km/h and the speed of the current is 3 Km/h, the distance between A and B is

a. 4 Km

b. 6 Km

c. 8 Km

d. 12 Km

Ans: D

(d) Speed downstream = (9 + 3) Km/h

= 12 Km/h

Speed upstream = (9 − 3) Km/h = 6 Km/h

Let, the distance AB = x Km

Then, $\frac{x}{6} + \frac{x}{12} = 3 \Rightarrow 2x + x = 36$

$\Rightarrow x = 12$

$\therefore$ Distance AB = 12 Km.