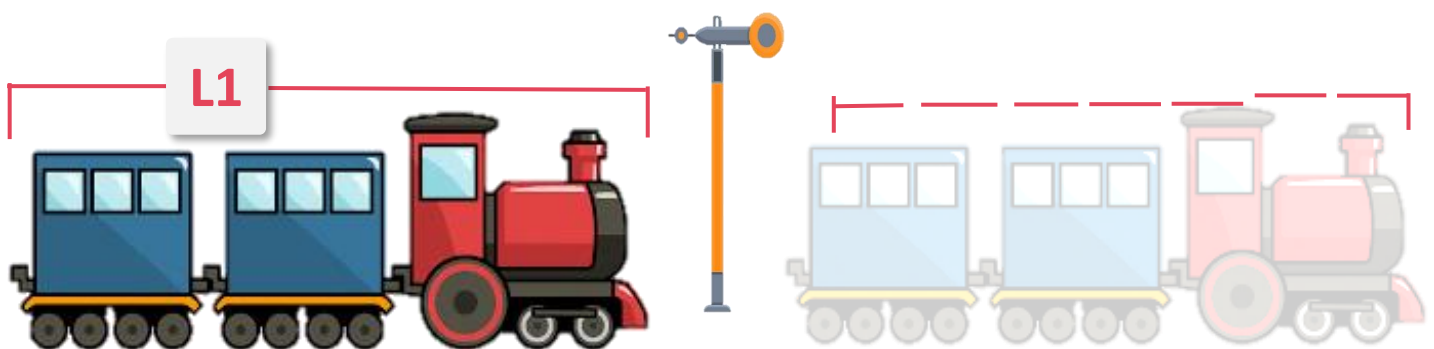# SSC ASSIGNMENT

Complete the assignment within 48 hrs and submit it to the InternShala chat as pdf or ppt files

Go through the INSTRUCTIONS carefully:

- Thoroughly understanding the demand of the questions and **creating visual/illustrative** ideas for explanations.
- Give explanations for each question and provide if there is an alternative way to solve the same
- Include innovative tricks, mnemonics, acronyms etc for ease of understanding and retention.

Sample Explanations for Reference

1) A train running at the speed of 60km/he crosses a pole in 9 seconds. What is the length of the train?

$$S = 60 \text{ km/hr} \times 5/18$$

$$= 50/3 \text{ m/s}$$

$$T = 9 \text{ sec}$$

$$\text{Length} = \text{Distance} = \frac{50}{3} \times 9$$

$$= \boxed{150 \text{ metres}}$$

Speed = Distance ÷ Time

Rock/ Pole/ Person

L 1

Distance travelled

Length of the train

2) In a stream running at 2km/hr, a boat goes 10km upstream and returns to the starting point in 55 min. Find out the speed of the boat in still water.

← 10 Km →

S

2 Km/hr
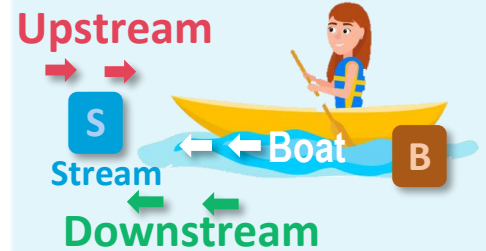
$U = \boxed{X - 2}$ $V = \boxed{X + 2}$

$T = 55 \text{ min} = \dfrac{55}{60} \text{ hr}$

$T = \dfrac{D}{U} + \dfrac{D}{V} \longrightarrow \dfrac{55}{60} = \dfrac{10}{X-2} + \dfrac{10}{X+2}$

$\dfrac{11}{12} = 10\left(\dfrac{1}{X-2} + \dfrac{1}{X+2}\right)$

$11x^2 - 240 - 44 = 0$

$= \boxed{X = 22 \text{ km/hr}}$

Upstream

S
Stream
← ← Boat
B
Downstream

Downstream

Along the stream

$V = \boxed{B} + \boxed{S}$

Upstream

Against the stream

$U = \boxed{B} - \boxed{S}$

Boat speed

$\boxed{B} = \dfrac{U + V}{2}$
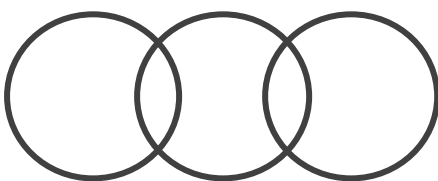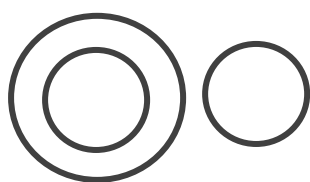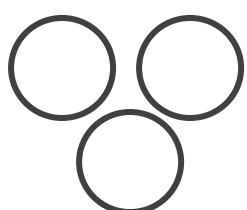
Stream

$\boxed{S} = \dfrac{U - V}{2}$

ASSIGNMENT

Q.1) Two circles touch each other internally. The radius of the smaller circle is 6 cm and the distance between the centre of two circles is 3cm. The radius of the larger circle is
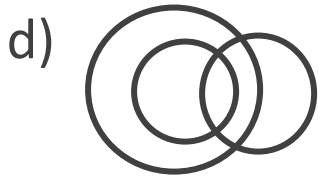
 a) 7.5cm

 b) 9cm

 c) 8cm

 d) 10cm

Correct Answer: B

Q.2) Select the Venn diagram that best illustrates the relationship among the following classes

Whisk, Utensil, Sickle

a)

b)

c)

d)

Correct Answer: B

Q.3) In a certain code language, 'ALPINE' is coded as '171' and 'SPRING' is coded as '83'. How will 'CAPITAL' be coded in that language?

a) 93
b) 124
c) 186
d) 62

Correct Answer: C