



UPPSC



CSAT

REASONING



BY – SHANTANU SIR

1-3 → Question



CLOCK -1

By Shantanu rai

TYPE OF QUESTIONS



Find degree



Find Right angle



Find coincide time

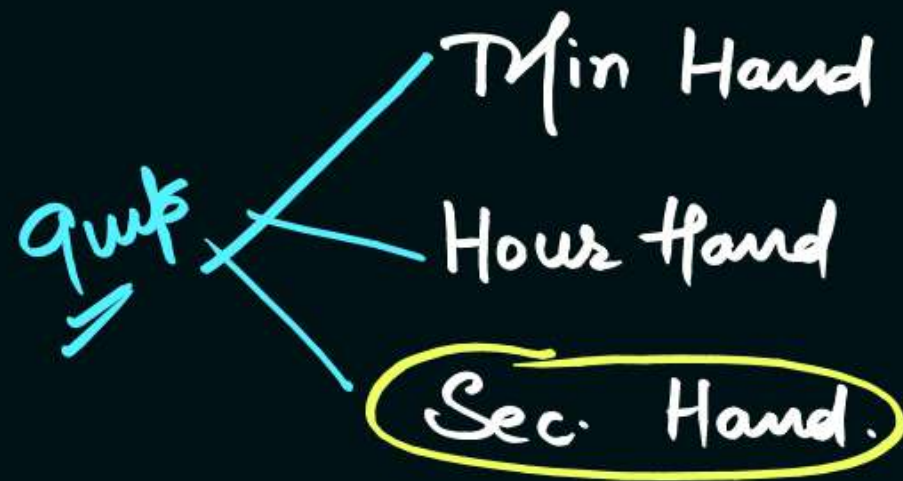


Find opposite time



Wrong Clock Based:

Basics:-



Min Hand:-

$$\therefore 60 \text{ Min} \longrightarrow 360^\circ$$

$$\therefore 1 \text{ Min} \longrightarrow \frac{360}{60}^\circ$$

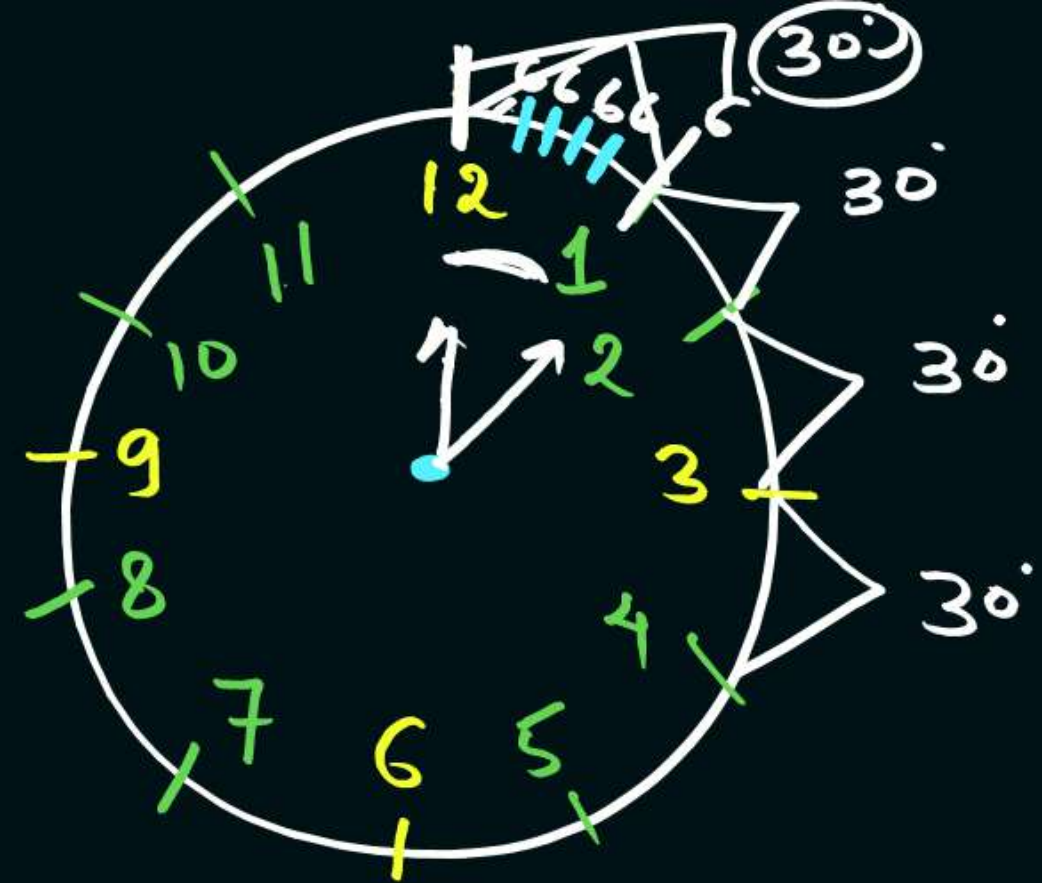
$$\boxed{1 \text{ Min} \rightarrow 6^\circ}$$

Hour Hand:-

$$\therefore 60 \text{ Min} \longrightarrow 30^\circ$$

$$\therefore 1 \text{ Min} \longrightarrow \frac{30}{60} = \frac{1}{2}^\circ$$

$$\boxed{1 \text{ Min} = \frac{1}{2}^\circ}$$



✓ Sec. Hand

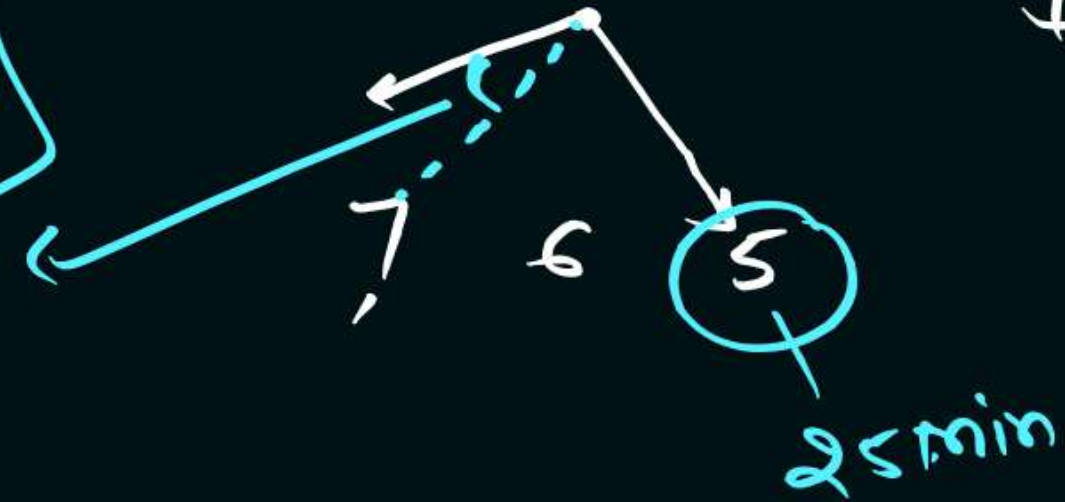
$$\hookrightarrow \boxed{1 \text{ Sec} \rightarrow 6^\circ}$$

3:15

7.5°

Hour Hand

12:50



~~8:45~~

Hours

22.5°

∴ 1 Min → $\frac{1}{2}$

∴ 25 min → $\frac{25}{2} = 12.5^\circ$

$$7:25 / 2 = 12.5^\circ$$

Degree Based Question

Internal
(अंतः कोण)



$$I.A. < 180^\circ$$

Reflex
(बाह्य कोण)



$$R.A. > 180^\circ$$

Basic Formula:

$$\theta = \frac{11}{2} \times M - 30 \times H$$

2:25 → अंतःकोण = ?

M = Minute

H = Hour

$$\begin{aligned}\theta &= \frac{11}{2} \times 25 - 30 \times 2 \\ &= \frac{137.5}{2} - 60\end{aligned}$$

$$137.5 - 60$$

$$= \boxed{77.5^\circ}$$

7:35 → Find Internal Angles?

5:25 → $\frac{25}{2} = 12.5^\circ$

$\frac{\text{Min}}{2} = \text{Ans}$

" if Both hands are

Coincide to each other

then $\Rightarrow \frac{\text{Min}}{2} = \text{Ans.}$ "

$\frac{35}{2} = 17.5^\circ$

" यदि दोनों सुइयों एक ही अंक पर

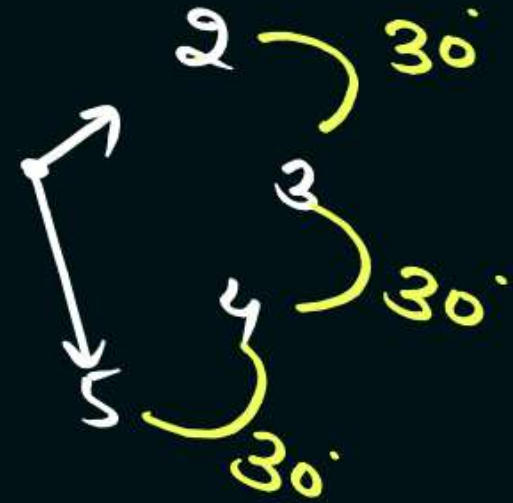
हो, तो $\frac{\text{Min}}{2} = \text{उत्तर आ जाएगा}$ "

$$2 \overset{12.5}{\cancel{25}} \text{ Min.} \rightarrow \text{अंतः कोण}$$

Trick:

$$2 \overset{7.5}{\cancel{15}} \rightarrow \text{अंतः कोण}$$

$$\begin{array}{r} 90.0 \\ - 12.5 \\ \hline 77.5 \end{array}$$



$$\begin{array}{r} 30.0 \\ 7.5 \\ \hline 22.5 \end{array}$$

22.5°

Q.

7:21 → अंतः कोण

10.5°

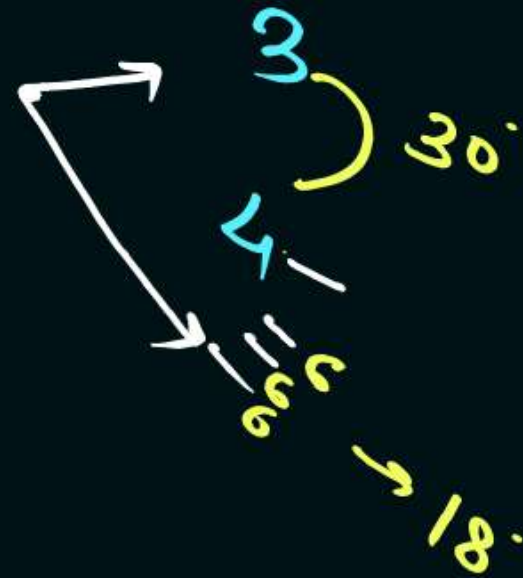
$$\begin{array}{r} 84.0 \\ + 10.5 \\ \hline 94.5 \end{array}$$



3:23 → कोण: (अंतः)

11.5°

$$\begin{array}{r} 48.0 \\ 11.5 \\ \hline 36.5^\circ \end{array} \text{ Ans.}$$



Hour Hand = आगे

↓
(+)

Hour Hand → पीछे

↓
(-)