

T<sub>1</sub> T<sub>2</sub>

1 :- a)

T<sub>1</sub>  
w(x)

T<sub>2</sub>

T<sub>3</sub>

w(x)

w(x)

w(x)

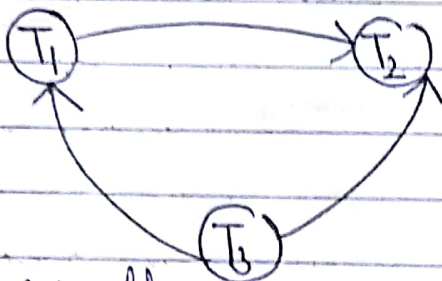
~~w(x)~~

w(y)

w(y)

w(y)  
w(x)  
w(y)

Precedence graph :-



∴ there is no cycle in the graph  
∴ conflict serializable.

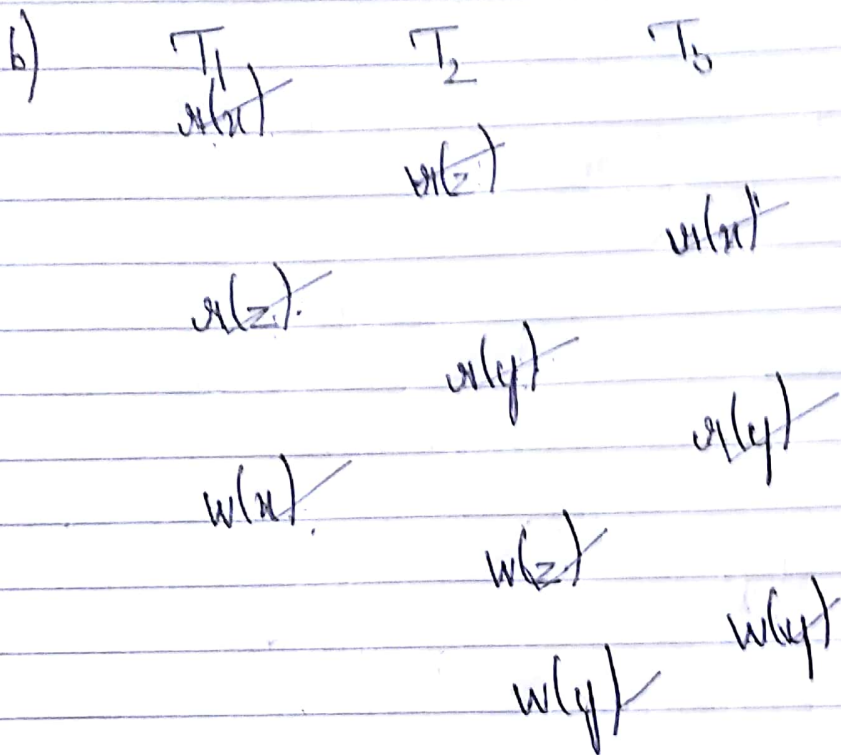
eg serial history

T<sub>3</sub>

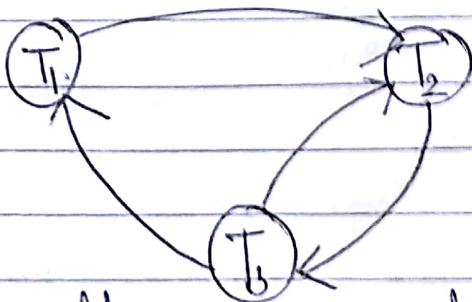
T<sub>1</sub>

T<sub>2</sub>

~~T<sub>2</sub>~~

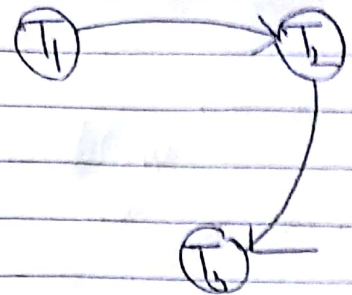


Precedence graph:-

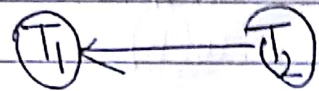


clearly there is a cycle in graph  
 $\therefore$  Not conflict serializable.

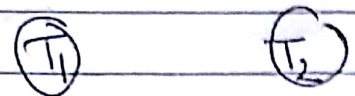
Ans 2 :-

$$\begin{array}{ccccc} S_1 & T_1 & & T_2 & T_3 \\ & u(A) & & & \\ & & & w(A) & \\ & u(B) & & & \\ & \cancel{C} & & & \end{array}$$

$$\begin{array}{l} w(B) \\ A(B) \\ w(H) \\ C \end{array}$$

Ans  $\therefore$  no cycle  $\therefore$  conflict serializable  
and  $T_1 \rightarrow T_2 \rightarrow T_3$

$$\frac{a(c)}{c}$$
$$\begin{array}{ccc} \beta_2 & T_1 & T_2 \\ & \alpha(A) & \\ & & WCB) \\ & \alpha(B) & \\ & C & \\ & & C \end{array}$$


Ans conflict serializable  
and  $(T_2) \rightarrow (T_1)$

$$\begin{array}{ccc} S_3 & T_1 & T_2 \\ & \alpha(H) & \\ & & w(B) \\ & & c \\ & R(B) & \\ & w(B) & \\ & c & \end{array}$$


Doubt



Q4

$T_1$   
 $w(n)$

$T_2$

$w(n)$   
 $c$

$w(n)$   
 $c$



Ans conflict serializable  
and  $T_1 \rightarrow T_2$

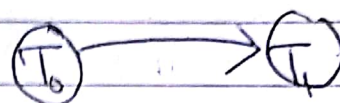
Q5 :-

$T_0$   
 $r(n)$   
 $w(n)$

$T_1$

$r(n)$   
 $r(B)$   
 $c$

$r(B)$   
 $w(B)$   
 $c$



$\therefore$  there is no cycle  
Ans conflict serializable  
and  $T_0 \rightarrow T_1$

X — X