Task - Define a standard 3 light system (Red, Green, Amber) with an interrupt .  
  
Logic -1 Pseudocode

1. Start   
2. Declare Variable :-  
 Const (GL)== 40 Sec // Green Light  
 Const (AL)== 15 Sec // Amber Light  
 Const (RL)==55 Sec // Red Light (calculations are below)  
 Interrupt == False // No Interrupt detected.   
 Interrupt == True // Interrupt detected.   
 State\_RL=0, State\_GL=0, State\_AL=0,

3. Calculate Red light’s timing  
 RL=55 Sec // Redlight = Greenlight + Amberlight  
   
4 Turning on Green Light

4.1 // Without Interruption   
 if Interrupt==False;  
 State\_RL==0 , State\_AL==0; // turn off all other light   
 State\_GL=1 // Turns on Green Light  
 WAIT //Wait for 40 Sec  
 State\_GL=0

4.2 // With Interruption  
 if Interruption==True;  
 Turn System off or GO back to step 4.1

5. Turning on Amber Light  
  
5.1 // Without Interruption  
 if Interrupt==False;  
 State\_RL==0 , State\_GL==0; // Turn off all other lights  
 State\_AL=1 // Turns on Green Light  
 WAIT //Wait for 15 Sec  
 State\_AL=0

5.2 // With Interruption  
 if Interruption==True;  
Turn System off or GO back to step 4.1

6. Turning on Red Light   
  
6.1 // Without Interruption  
 if Interrupt==False;  
 State\_GL==0 , State\_AL==0; // Turn off all other lights  
 State\_RL=1 // Turns on Green Light  
 WAIT //Wait for 55 Sec  
 State\_RL=0   
6.2 // // With Interruption  
 if Interruption==True;  
 Turn System off or GO back to step 4.1

7. End