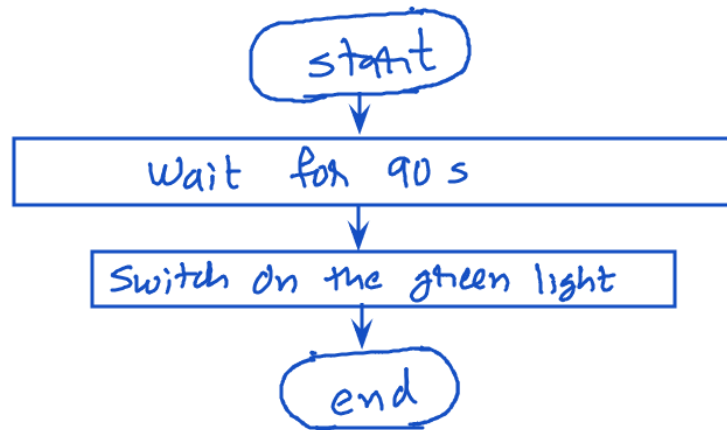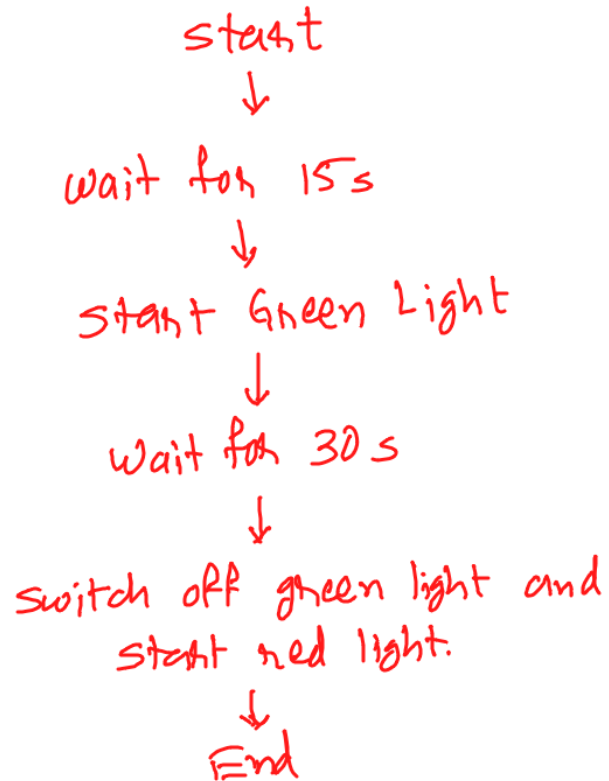(i) How would you approach?

(ii) How many approaches can you think of?

(iii) Why do you choose that approach only?

☆ Flow Charts

→ Draw a flow chart to switch on the green light after 90 s.

```
        ( start )
            ↓
  ┌─────────────────────┐
  │   Wait for 90 s     │
  └─────────────────────┘
            ↓
  ┌─────────────────────┐
  │ Switch on the green light │
  └─────────────────────┘
            ↓
         ( end )
```

① Draw a flowchart that starts the green light after 15s of starting the program. Then wait for 30s and then switch off Green light and start Red light.

start
↓
wait for 15s
↓
Start Green Light
↓
wait for 30s
↓
Switch off green light and start red light.
↓
End

2. Draw a flow chart for the program that controls the traffic lights of a cross road. The functions of the programs are as below:

First, the Green light starts and is kept on until all the vehicle passes away. It takes 25s. Then the orange light starts instead of green and remains on for next 5s so that the next drivers can slow down. After the orange light turns off, the red light goes on and stays on till the next 90s so that the traffic from other three sides of the cross road can move one by one. This process keeps on repeating the entire day.

start

↓

start the Green Light

↓

wait for 25s

↓

Turn Greenlight off and start the orange light

↓

wait for 5s

↓

Turn Orange light off and Red light on.

↓

wait for 90s