

Second level DFD of Hostel Management System

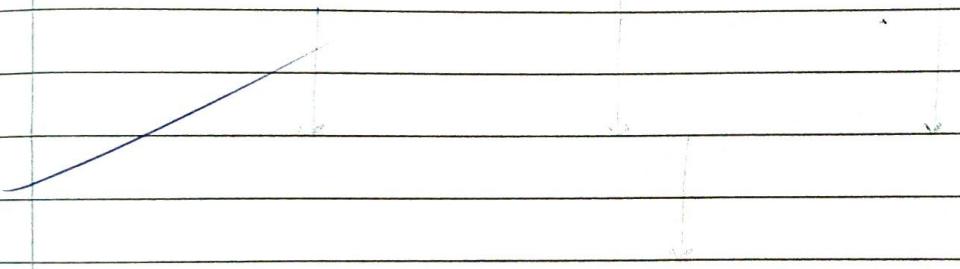
Date _____

Expt. No. _____

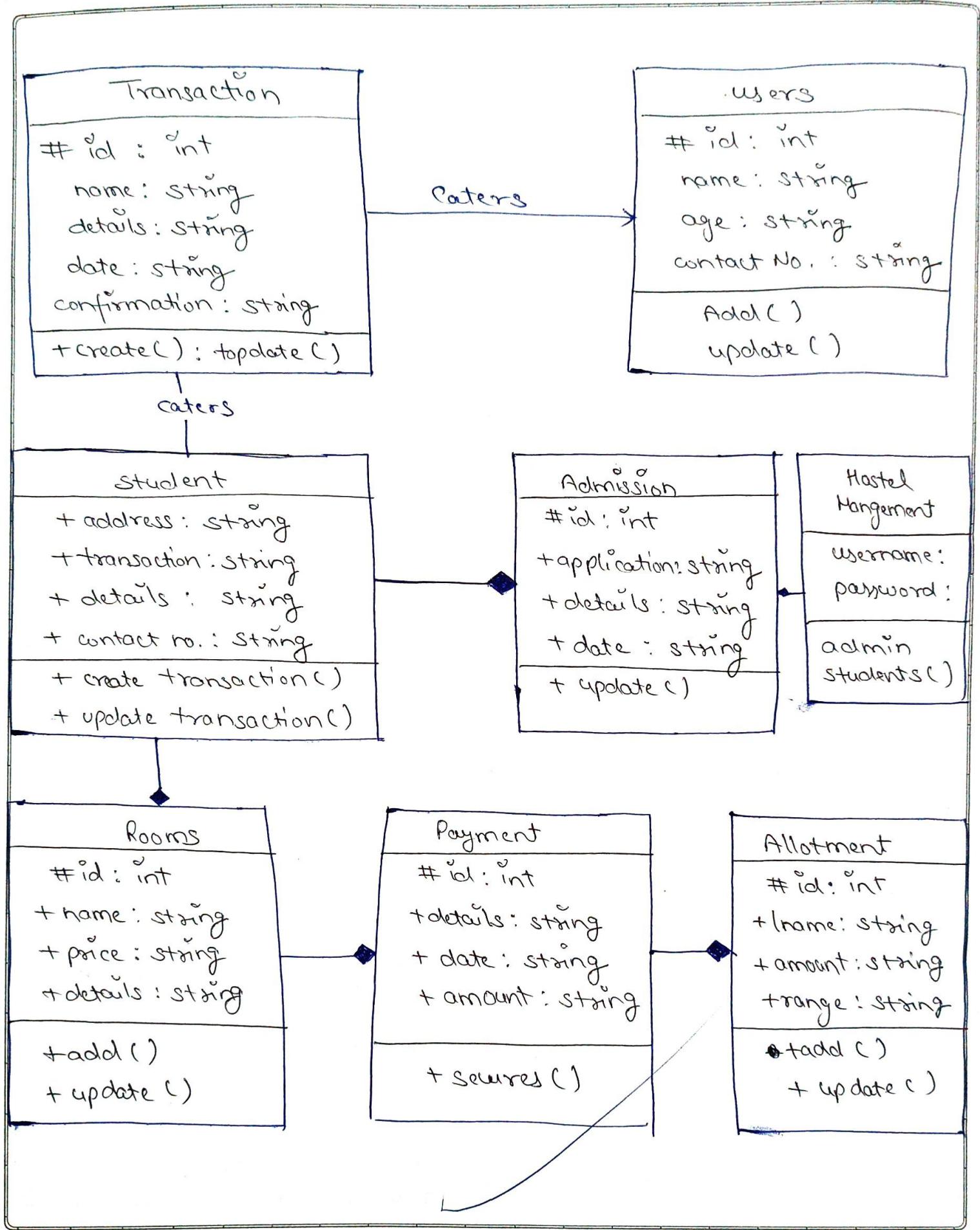
Page. No. _____

Experiment :- 06

Ques Draw class diagram for your respective project, use tools such as online draw.io or any other tools of your choice.



Teacher's Signature : _____



Date _____

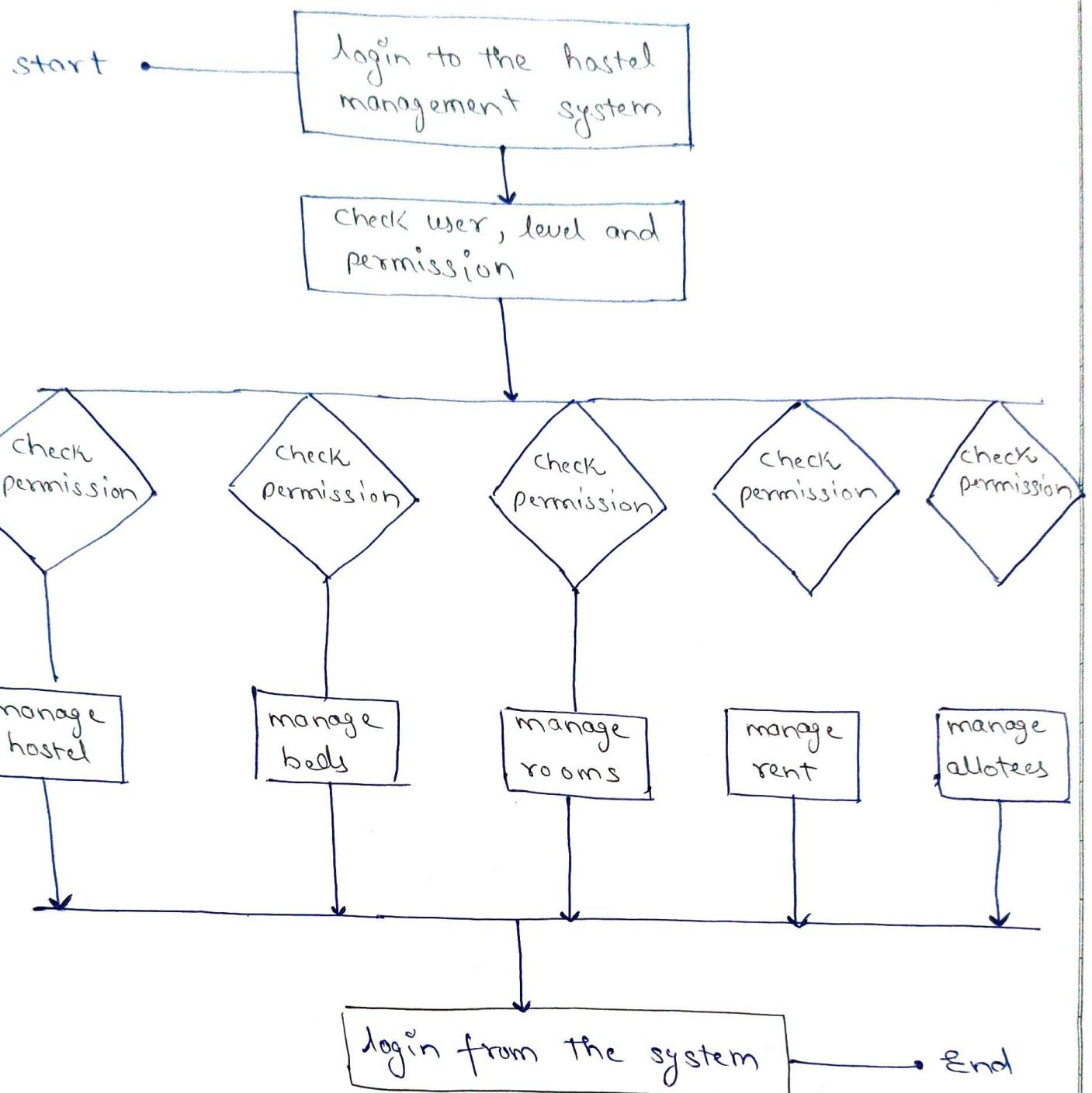
Expt. No. _____

Page. No. _____

Experiment :- 07

for Development of object models using UML techniques for projects.

Teacher's Signature : _____

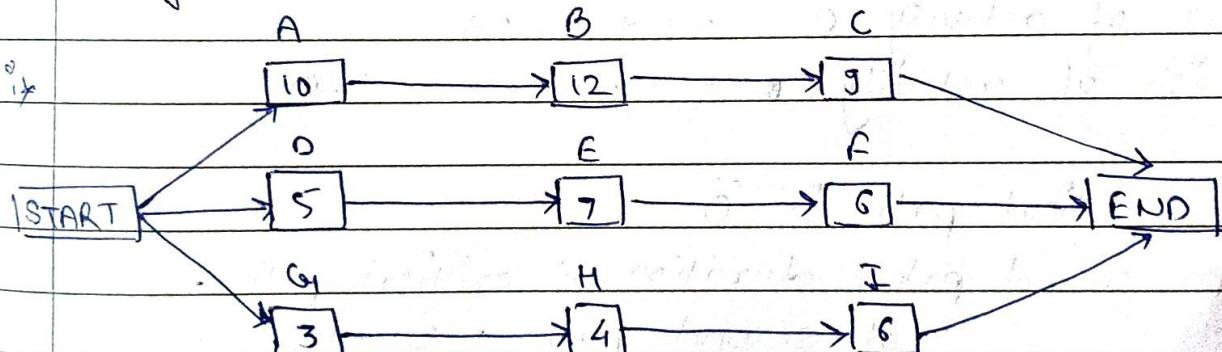


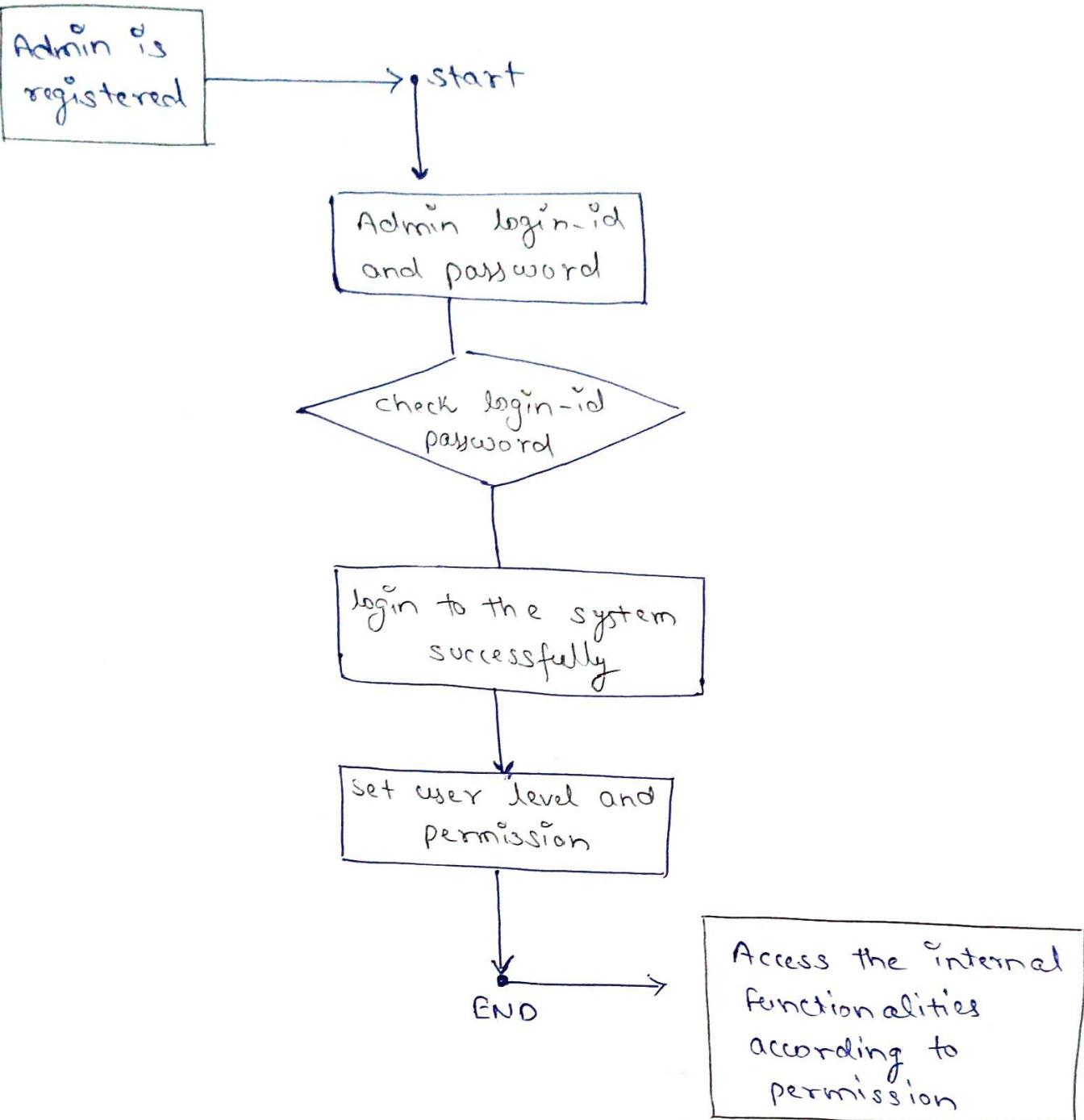
Experiment :- 08

- I. Draw CPM diagram tools: you can use online Drawing tools.
- Draw activity n/w diagram
 - Calculate earliest start time, earliest finish time, latest start time and latest finish time.
 - Compute total float & free float.
 - Find the critical activities and critical path.
 - Calculate the project completion time.
 - Critical path = Start \rightarrow A \rightarrow B \rightarrow C \rightarrow END

because it is 31 days we cannot complete our project in less time and hence it is duration of critical path.

Critical path follow as the sequence of activities from start to end and it has the longest duration of all the paths in n/w diagrams in ideal condition, a n/w diagram should have one critical path.





by The nw diagram have five path

$$S \rightarrow A \rightarrow B \rightarrow C \rightarrow END$$

$$S \rightarrow D \rightarrow E \rightarrow F \rightarrow END$$

$$S \rightarrow G \rightarrow H \rightarrow I \rightarrow END$$

$$S \rightarrow G \rightarrow E \rightarrow F \rightarrow END$$

for path start $\rightarrow A \rightarrow B \rightarrow C \rightarrow END$

$$\text{Early start of activity } A = 1$$

$$\text{Early finish of activity } A = ES \text{ of activity } A + \\ \text{Activity duration - 1} = 1 + 10 - 1 = 10$$

$$\text{Early start of activity } B = EF \text{ of predecessor activity} + 1 \\ = 10 + 1 = 11$$

$$\text{Early finish of activity } B = FS \text{ of activity } B + \text{activity} \\ \text{duration - 1} = 11 + 12 - 1 = 22$$

$$\text{Early start of activity } C = 22 + 1 = 23$$

$$\text{Early finish of activity } C = 22 + 9 - 1 = 30$$

C) float on critical path is 0

$$\text{float for second path} = \text{duration of critical path} - \text{duration} \\ \text{of second path} = 31 - 18 = 13$$

$$\text{float for third path} = 31 - 28 = 3 \text{ days}$$

$$\text{float for fourth path} = 31 - 13 = 18 \text{ days}$$

$$\text{float for fifth path} = 31 - 16 = 15 \text{ days}$$

$$\text{Total float} = 0 + 13 + 3 + 18 + 15 = 49$$

Free float of activity C = ES of next act - EF of
activity C-1 = 6 - 3 - 1 = 2

d) Critical activities = A, B, C

Critical path = start \rightarrow A \rightarrow B \rightarrow C \rightarrow END

e) Project completion time = optimistic estimate + 4 \times most likely estimate + pessimistic estimate / 6
 $= (13 + 4 \times 18 + 31) / 6 = 19.34 \text{ days}$

Experiment :- OG

Test Design of test suits for hostel management system identify the features, components programmes to be tested to all possible paths in a flow graph.

Write test cases to cover every single path on flow graph.
Test limit : Hosteller registration

Condition to be tested	Test date	Expected output	Remark
If hosteller type is not selected	Hosteller type	Kindly select Hosteller type	successful
If password less than 10	Password	Password must contain atleast 6 char	successful
If email-id does not contains proper format	Email-id	Entered email id is not valid	successful

~~John~~
01/11/23

Teacher's Signature : _____

