Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 07-10-2025 **Time:** 11.45am to 01.15pm

School: SOIS	**Program:** 5BCAAIML02	
Course Code: CSA3020	**Course Name:** AI for Game Development	
Semester: V	**Max Marks**: 50	**Weightage**: 25%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**26**	**24**	**0**	**0**	**0**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

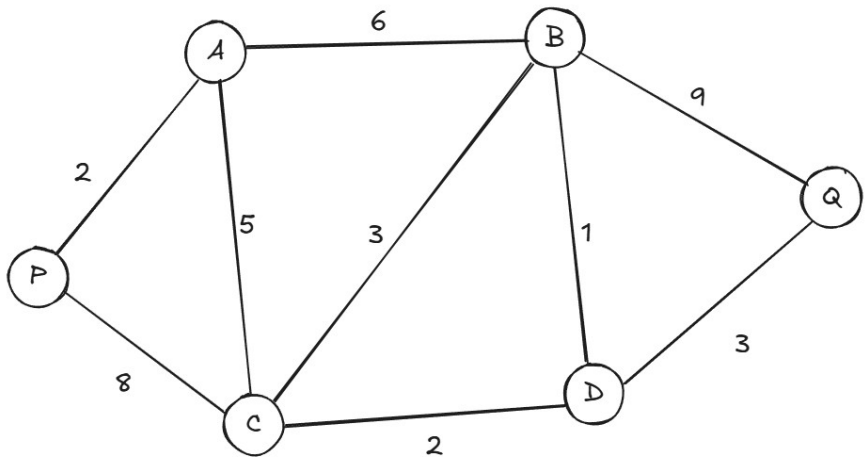
Answer ALL the Questions. Each question carries 2marks. **5Q x 2M=10M**

1	What is utility function? Explain with the help of example.	**2 Marks**	**L1**	**CO1**
2	What do you understand by turn-based games?	**2 Marks**	**L1**	**CO1**
3	What are informed search techniques? Discuss briefly	**2 Marks**	**L1**	**CO2**
4	What is path finding? How we are going to perform path finding in our Game AI?	**2 Marks**	**L1**	**CO1**
5	Compare DFS vs BFS	**2 Marks**	**L2**	**CO2**

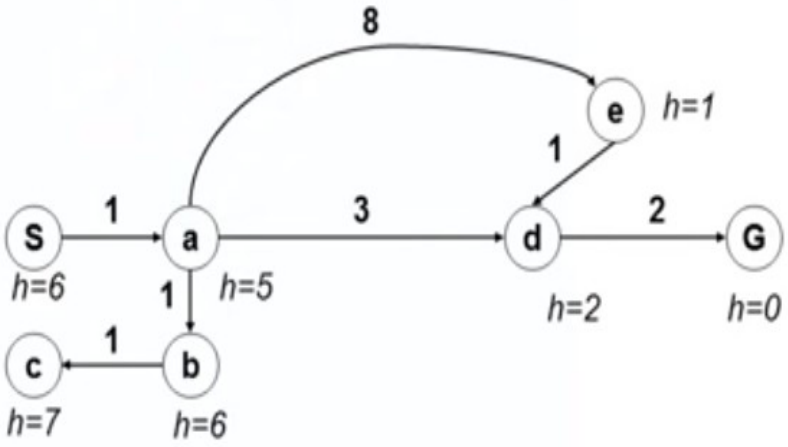
Part B

Answer the Questions. **Total Marks 40M**

6.	**a.**	Explain AI in your own term with the help of example. Explain model of Game AI.	**10 Marks**	**L2**	**CO 1**
		Or			
7.	**a.**	Explain min-max search (minimaxing)? Outline the challenges in exploring game tree in game AI?	**10 Marks**	**L2**	**CO 1**

8.	**a.**	Explain path finding with the help of your own graphs example.	**10 Marks**	**L2**	**CO 2**
		Or			
9.	**a.**	Explain Dijkstra's algorithm? Solve for the shortest path according to the below given graph: (Source: P, Destination: Q) 	**10 Marks**	**L2**	**CO 2**

10.	**a.**	Explain decision making in Game AI? Discuss decision making in the context of Grid with any of your own example.	**10 Marks**	**L2**	**CO 2**
		Or			
11.	**a.**	Explain A* algorithm? Identify the path traversed according to the A* algorithm for the below given graph?	**10 Marks**	**L2**	**CO 2**

12.	**a.**	Explain Decision making? Discuss any two decision making methods used in Game AI with proper example.	**10 Marks**	**L2**	**CO 1**
		Or			
13.	**a.**	Explain model of Game AI. Explain different sections/component of game AI? Is it necessary to have all the sections/components in a particular game?	**10 Marks**	**L2**	**CO 1**