Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 08-12- 2025 **Time:** 01:00pm – 04:00pm

School: SOIS	**Program:** BCA AIML	
Course Code: CSA3020	**Course Name:** AI for Game Development	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**4**	**34**	**14**	**14**	

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. **10Q x 2M=20M**

1.	What is Game AI.	**2 Marks**	**L1**	**CO1**
2.	Define AI in your own terms.	**2 Marks**	**L1**	**CO1**
3.	Define Utility function.	**2 Marks**	**L1**	**CO2**
4.	What is Markov system.	**2 Marks**	**L1**	**CO2**
5.	What do you understand by Movement planning.	**2 Marks**	**L1**	**CO3**
6.	Define Fuzzy Logic. How It differ from Binary logic	**2 Marks**	**L1**	**CO3**
7.	What are Adversarial search algorithms.	**2 Marks**	**L1**	**CO4**
8.	Illustrate Reinforcement Learning.	**2 Marks**	**L2**	**CO4**
9.	Identify Ideal ordering in context of Alpha beta pruning.	**2 Marks**	**L2**	**CO5**
10.	Explain minimax search with the help of example.	**2 Marks**	**L3**	**CO5**

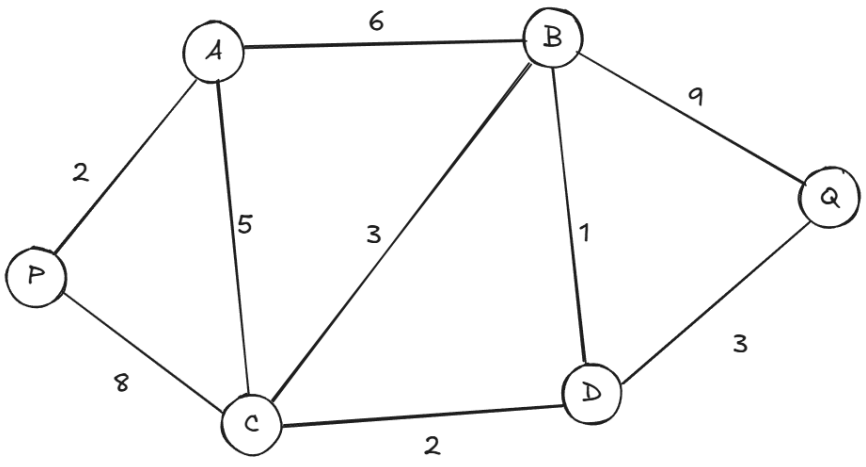
Part B

Answer the Questions. **Total Marks 80M**

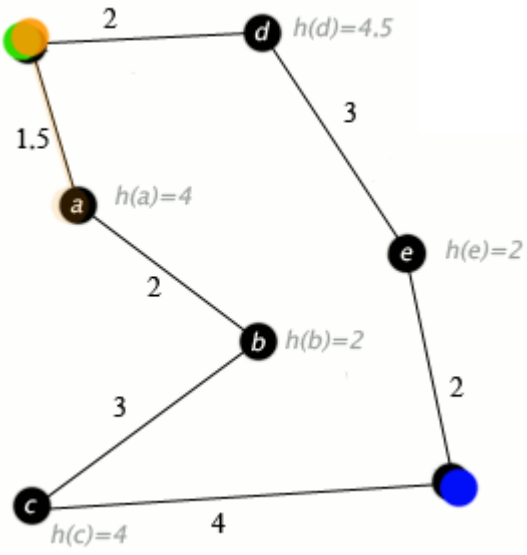
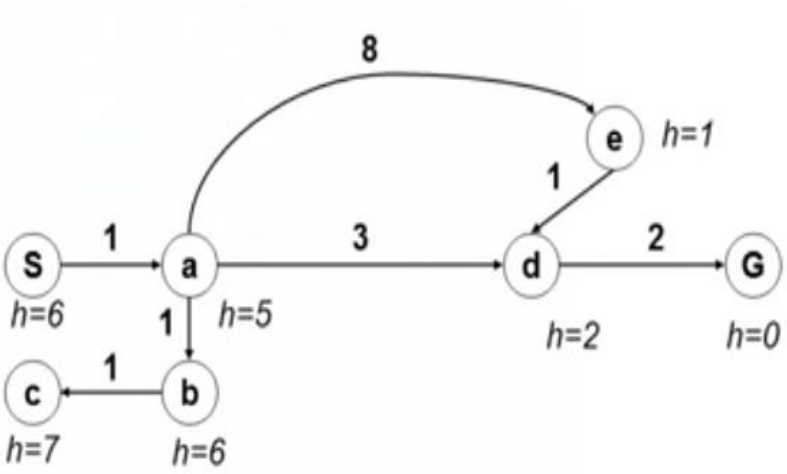
11.		Illustrate Decision Trees with the help of example. State Machines	**10 Marks**	**L2**	**CO2**
		Or			
12		What is states machine or FSMs. Illustrate with the help of an example. Also write FSM for electric bulb system.	**10 Marks**	**L2**	**CO2**

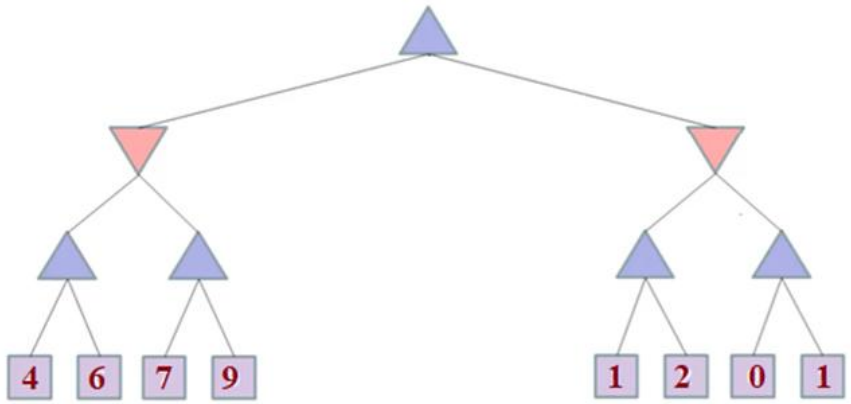
13		Explain Grids in the context of games. Also explain decision making in grid with the help of sudoku game.	**10 Marks**	**L2**	**CO2**
		Or			
14		Identify hierarchical and continuous time path finding in the context of Game AI with proper example.	**10 Marks**	**L2**	**CO2**

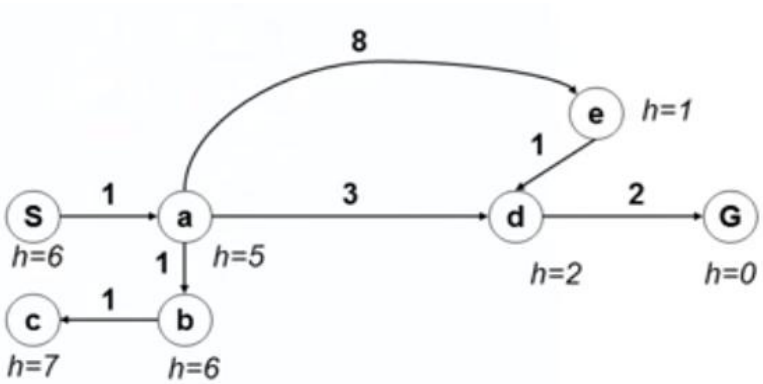
15		While applying one of adversarial search algorithm solve a game tree of your own choice. And explain how it is efficient as compared to traditional algorithm.	**10 Marks**	**L3**	**CO3**
		Or			
16		Explain any one Uninformed search algorithm with both tree and a graph data structure.	**10 Marks**	**L2**	**CO3**

17		**Compare and Contrast Dijkstra's Algorithm. And solve the below question based on it:** 	**10 Marks**	**L2**	**CO2**
		Or			
18		**Compare and contrast adversarial search algorithms with the help of your own game tree.**	**10 Marks**	**L2**	**CO2**

19		**Compare Best First Search (for example BFS, DFS). Solve the below problem according to Best FS.**	**20 Marks**	**L2**	**CO4**

		 **Or**			
20		**Compare Best First Search (for example BFS, DFS). Solve the below problem according to Best FS.** 	**20 Marks**		
21		**Compare A* algorithm with classical algorithm (for example BFS, DFS). Solve the below problem according to A*.**	**20 Marks**	**L2**	**CO5**

		Or			
22		**Compare A* algorithm with classical algorithm (for example BFS, DFS). Solve the below problem according to A*.** 	**20 Marks**	**L3**	**CO5**