

B. Tech (Honours) (AI/DS)

Class Test - I, May, 2023

(AICTE Scheme)

(Computer Science and Engineering Branch)

Subject- Artificial Intelligence: Principles and Applications

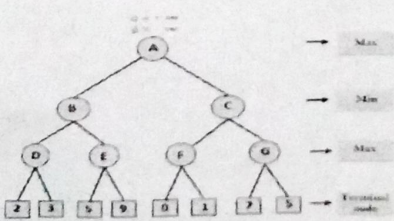
Subject Code: B127472(022)

Time Allowed: 2 hours

Maximum Marks: 40

Minimum Pass Marks: 14

- Note: (i) Each question contains four parts. Part (a) of each question is compulsory. Attempt any two parts from (b), (c), and (d) of each question.
(ii) The figure in the right-hand margin indicates marks.

I.	(a) What is Heuristic Searching Technique? Explain its advantages.	[4]
	(b) Explain Missionaries cannibal problem with proper state space technique.	[8]
	(c) How we can define that the machine is intelligent or not? Give proper justification with suitable model.	[8]
	(d) What do you mean by constrain satisfaction problem? Solve the below problem using crypt arithmetic technique. CROSS + ROADS ----- DANGER	[8]
II.	(a) What is propositional logic? Explain it with proper syntax and semantic.	[4]
	(b) Explain AO* Algorithm with using suitable graph.	[8]
	(c) Explain Min-Max Search Algorithm with using following search tree. 	[8]
	(d) Convert the following statement in FOPL: (Any 4) I. No one is loyal to someone. II. No purple mushrooms are poisonous. III. Every Child should respect his parents. IV. All birds can fly. V. All software programmers are engineers.	[8]