

Total No. of Questions : 8]

SEAT No. :

PB-3793

[Total No. of Pages : 2

[6262]-52

T.E. (Artificial Intelligence & Data Science)
ARTIFICIAL INTELLIGENCE
(2019 Pattern) (Semester - I) (310253)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer four questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data, if necessary.

Q1) a) Explain min Max and Alpha Beta pruning algorithm for adversarial search with example [9]

b) Define and explain Constraints satisfaction problem. [9]

OR

Q2) a) Explain with example graph coloring problem. [9]

b) How AI technique is used to solve tic-tac-toe problem. [9]

Q3) a) Explain Wumpus world environment giving its PEAS description. [9]

b) Explain different inference rules in FOL with suitable example. [8]

OR

Q4) a) Write an propositional logic for the statement, [10]

i) "All birds fly"

ii) "Every man respect his parents"

b) Differentiate between propositional logic and First order logic. [7]

Q5) a) Explain Forward chaining algorithm with the help of example. [9]

b) Write and explain the steps of knowledge engineering process. [9]

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OR

- Q6)** a) Explain Backward chaining algorithm with the help of example. [9]
b) Write a short note on [9]
i) Resolution and
ii) Unification

- Q7)** a) Write a short note on planning agent, state goal and action representation [6]
b) Explain different components of planning system. [6]
c) Explain the components of AI. [5]

OR

- Q8)** a) What are the types of planning? Explain in detail. [6]
b) Explain Classical Planning and its advantages with Example. [6]
c) Write note On hierarchical task network planning. [5]

