

Total No. of Questions : 8]

SEAT No. :

PE-2511

[Total No. of Pages : 2

[6583]-37

T.E. (Computer Engineering)
ARTIFICIAL INTELLIGENCE
(2019 Pattern) (Semester - VI) (310253)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4 Q.5 or Q.6, Q. 7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagram must be drawn wherever necessary.
- 4) Assume suitable data if necessary.

Q1) a) What is adversarial Search and explain features of AI Games? [9]

b) Explain MINIMAX search technique/algorithm with an example. [9]

OR

Q2) a) Explain in detail the Constraint Satisfaction Problem with a suitable example. Solve following crypto arithmetic problem. [9]

S E N D

M O R E

M O N E Y

b) Explain Alpha-Beta Tree Search and Cut-Off Procedure in detail with Example. [9]

Q3) a) List the inference rules used in propositional logic. Explain it in detail with suitable example. [9]

b) Explain syntax and semantic of First Order Logic in detail. [8]

OR

P.T.O.

Q4) a) Detail the algorithm for deciding entailment in propositional logic. Give Analysis. [9]

b) Describe WUMPUS WORD environment & specify PEAS properties with types of environment for the same. [8]

Q5) a) Explain knowledge representation structure in detail. [9]

b) Explain the unification algorithm with an example. [9]

OR

Q6) a) Explain forward and backward chaining. What factors justify whether reasoning is to be done in forward or backward chaining? [9]

b) What are the reasoning patterns in propositional logic? Explain them in detail. [9]

Q7) a) List and explain AI components of planning. Discuss AI and its ethical concerns. [9]

b) What are the algorithms for classical and automated planning? [8]

OR

Q8) a) Write a detail note on AI architecture. Explain Limits of AI. [9]

b) Analyse various planning approaches in detail. Explain Hierarchical Planning. [8]

