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Roll No.

H30

B. Tech. EXAMINATION, 2020

(Eighth Semester)

(B-Scheme) (Re-appear Only)

(EE)

EE446B

ARTIFICIAL INTELLIGENCE

Time : 2½ Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Four* questions in all. All questions carry equal marks.

1. (a) Describe specific features of LISP and Prolog that make them suitable for AI programs.
(b) Discuss the AO* algorithm.
2. (a) What do you mean by blind search technique ? What are its features ?
(b) Explain the rationale and steps of Hill Climbing.
3. (a) Define antecedent and consequent. Whether one or more than clauses can be there in antecedent and similarly in consequent ? If yes, write a typical rule with multiple clauses.
(b) What are semantic nets and frames ? What purpose do they serve ?
4. (a) What are the primitives of fuzzy reasoning ? Demonstrate approximate reasoning, taking an example.

- (b) Differentiate between temporal and non-monotonic reasoning.
- 5. (a) What is meant by calculus of linguistic variables ?
(b) How (by use of what operators) do genetic algorithms learn and evolve ?
- 6. (a) Explain the partial order planning algorithm.
(b) Define a neural network.
- 7. Draw the architecture of an Expert System. Under what broad discipline are ESs subsumed ? Describe briefly the function of each block of ES.
- 8. Write a technical note on current trends in intelligent systems.