

TCS/TIT-701

B. TECH. (CS/IT)
(SEVENTH SEMESTER)
MID SEMESTER EXAMINATION, 2018
ARTIFICIAL INTELLIGENCE

Time : 1:30 Hours

Maximum Marks : 50

Note : (i) This question paper contains two Sections.

(ii) Both Sections are compulsory.

Section—A

1. Fill in the blanks : (1×5=5 Marks)
- (a) Inductive and Deductive are two types of
 - (b) Medical diagnosis and scientific analysis come under the umbrella of systems.
 - (c) The term 'Artificial Intelligence' was coined by
 - (d) A solution can be a state or a
 - (e) An agent is anything that can perceive its environment through

(2)

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2. Attempt any *five* parts : (3×5=15 Marks)
- (a) What is Turing Test ?
 - (b) Differentiate between BFS and DFS.
 - (c) Best First Search Algorithm.
 - (d) Explain Fillmore's grammar.
 - (e) Shanks Conceptual Dependency.
 - (f) Explain 'Augmented transition nets'.

Section—B

3. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) Explain water jug problem.
 - (b) What is game playing ? Explain min-max algorithm.
 - (c) What are the different problem solving techniques ?
4. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) Explain Hill climbing. Enumerate the problems associated with it.
 - (b) What is artificial intelligence ? What are the applications of AI ?
 - (c) What is A* algorithm ? Explain with an example.

(3)

5. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)
- (a) What is informed search and uninformed search ? Explain any *one* algorithm belonging to each category.
 - (b) What is context free grammar ? What is the difference between context free grammar and transformational grammar ?
 - (c) Explain 'Transition nets'.

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