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BICS-021

**B. TECH.-VIEP-COMPUTER SCIENCE
AND ENGINEERING (BTCSVI)**

Term-End Examination

June, 2019

BICS-021 : ARTIFICIAL INTELLIGENCE

Time : 3 Hours

Maximum Marks : 70

*Note : Answer any seven questions. All questions
carry equal marks.*

1. (a) Write Hill-Climbing algorithm. Explain it with suitable example. 5
- (b) What is Means-End Analysis ? Discuss it with suitable example. Give application areas related to this analysis. 5
2. (a) Discuss Bayesian network with suitable example. Give application areas related to Bayesian networks. 5
- (b) What do you understand by the term Frame in Artificial Intelligence ? Discuss the various parts of Frame. 5

(A-34) P. T. O.

3. (a) Explain min-max search procedure with a suitable diagram. 5
- (b) What is Knowledge ? How is it different from Intelligence ? Discuss any knowledge representation mechanism. 5
4. What is Alpha Cutoff and Beta Cutoff mechanism ? Explain both with the help of suitable example. 10
5. What do you understand by the concept of resolution in Artificial Intelligence ? What is the utility of this concept of resolution ? Explain the procedure of resolution with suitable example. 10
6. What is Monotonic Reasoning ? How is it different from non-monotonic reasoning ? Explain each with the help of an example. 10
7. Write Breadth First Search (BFS) algorithm. Explain BFS algorithm with the help of suitable example. 10
8. What is Intelligence ? How is it different from Artificial Intelligence ? Explain the Turing test and Chinese room test ? Why for these tests are performed ? 10
9. Represent the following sentences using symbolic logic : 5×2
- (a) All that glitters is not gold

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- (b) Jack and Jill went up the hill
- (c) All students like good teachers
- (d) Fruits and vegetables are delicious
- (e) God helps those who help themselves

10. Write short notes on any *two* of the following, give suitable example for each : 10

- (a) Semantic Nets
- (b) A* Algorithm
- (c) Expert systems