

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT

Office of the Dean
March - April 2017

Full Marks: 40
Time: 2 hrs.

BIM / Seventh Semester / IT 228: Artificial Intelligence

Candidates are required to answer all the questions in their own words as far as practicable.

Group "A"

I. Brief Answer Questions:

[10 × 1 = 10]

- i. When machine is termed intelligent in Turing Test?
- ii. Define agent function.
- iii. Why pragmatic analysis is necessary in NLP?
- iv. In what type of situation fuzzy logic can be used?
- v. "Every husband loves his wife", convert the above statement in FOPL.
- vi. What is unsupervised learning?
- vii. Write any two conflict resolution strategies in production system.
- viii. What is skolemization?
- ix. What do you mean by Admissible heuristics?
- x. What is alpha-beta pruning?

Group "B"

Short Answer Questions:

[5 × 4 = 20]

2. How Goal based agent works? Explain.
3. Differentiate between forward chaining and backward chaining with suitable example.
4. Explain any two Activation function.
5. Why genetic algorithm is important? Explain different operators of genetic algorithm with suitable example.
6. Explain learning agent with block diagram.

Group "C"

Comprehensive Questions:

[2 × 5 = 10]

7. Define game playing search. Why alpha beta pruning is better than min-max algorithm? Justify with suitable game tree.
8. Ram is a boy. Sita is a girl. Ram is husband of Sita. If girls has husband then she is married. Write above knowledge base in predicate logic and show that "Sita is married" using Resolution algorithm.

