

TRIBHUVAN UNIVERSITY  
FACULTY OF MANAGEMENT  
Office of the Dean  
January 2021

Full Marks: 60  
Pass Marks: 27  
Time: 1.5 hrs.

**BIM / Seventh Semester / IT 228: Artificial Intelligence**

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

**Attempt any Six Questions:**

[6 × 10 = 60]

1. Define an artificial intelligence (AI). Describe your own criteria for computer program to be considered intelligent.
2. How do you evaluate the performance of intelligent agent? Explain PEAS with suitable example.
3. Explain Expert System with its characteristics and components.
4. What are basic components for production system? Explain it with diagram.
5. Why neural network is more useful for machine learning? Explain any one activation function used in the neural network.
6. Given sentences: "Mike comes to the party; If Cathy comes to the party then Becky comes; If Cathy doesn't come then Mike won't come to the party"
  - a. Convert given sentences into propositional logic.
  - b. Convert into CNF
7. What is informed search? Explain A\* Search with an example.
8. Explain following:
  - a. fuzzy logic
  - b. Hebbian learning
  - c. Resolution
  - d. Cryptoarithmetic

