

Tribhuvan University
Institute of Science and Technology
2069

Bachelor Level/ Second Year/ Forth Semester/ Science

Full Marks: 60

Computer Science and Information Technology (CSc.255)

Pass Marks: 24

(Introduction to Cognitive Science)

Time: 3 hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. Explain the cognitive science and its applications.
2. Explain the artificial intelligence task domains with example.
3. Explain the steps involved in building a system to solve an artificial intelligence problem.
4. What do you mean by AO* algorithm? Explain with example.

OR

Differentiate between procedural and declarative knowledge.

5. Explain with block diagram of the components of a typical expert system
6. Differentiate between depth-first and breadth first search with example.
7. Explain the Turing machine with suitable example.
8. Mention the types of all Chomsky hierarchies and explain two of them with practical example.
9. Define the terms:
 - a) Gelernter
 - b) Pinker
10. Explain the parameters of natural language processing with its syntax and suitable example.

OR

Mention the steps of natural language processing and explain them in briefly.