

Roll No. ....

Total No. of Questions : 13]

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**D-25**

**[2037]**

**BCA (Semester - 6<sup>th</sup>)**

**ARTIFICIAL INTELLIGENCE (BCA - 601)**

Time : 03 Hours

Maximum Marks : 75

**Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

**Section - A**

**Q1)**

**(15 x 2 = 30)**

- a) What is Artificial Intelligence?
- b) Write components of a production system.
- c) What is heuristic search?
- d) Write any two computable predicates.
- e) When do we use Semantic nets?
- f) What do you understand by casual chain in scripts?
- g) Why do we need AI assumptions?
- h) What is a production system?
- i) What do you understand by problem space in AI?
- j) Write any two computable predicates.
- k) When do we use frames?
- l) What is conceptual dependency?
- m) What do you understand by casual chain in scripts?
- n) What is pragmatic processing?
- o) What is meant by class membership?

**Section - B****(9 x 5 = 45)**

- Q2)** Discuss the characteristics of Artificial Intelligence problems.
- Q3)** What is the role of conceptual dependency theory? Also discuss the operations performed by a parser.
- Q4)** Give an example of a problem for which breadth-first search would work better than depth-first search.
- Q5)** Construct a script for going to college from the viewpoint of a student of the college.
- Q6)** What are the steps in natural language processing?
- Q7)** Give an example of a problem for which depth-first search would work better than breadth-first search.
- Q8)** What is meant by class membership? Discuss the ways of representing it.
- Q9)** Discuss the steps in natural language processing.
- Q10)** Construct a script for going to office from the viewpoint of an employee of the office.
- Q11)** Use predicates to express the statement: Everyone loves their parents.
- Q12)** Discuss the role of conceptual dependency theory.
- Q13)** Explain techniques of Artificial Intelligence in detail.

