

# END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY- JUNE 2015

**Paper Code: BCA-312**

**Subject: Artificial Intelligence  
BATCH- 2011 Onwards**

**Time: 3 Hours**

**Maximum Marks: 75**

**Note: Attempt any five questions including Q.No 1 which is compulsory.**

- Q1 Answer the following questions:- (10x2.5=25)
- (a) What is AI? Mention application of AI.
  - (b) Name the two kinds of synchronous rules that allow deductions.
  - (c) State the reasons why the inductive logic programming is popular.
  - (d) What is constraint satisfaction?
  - (e) What is Heuristic Search?
  - (f) Define Expert System Shell.
  - (g) Discuss the advantages of Decision support systems.
  - (h) How does alpha beta pruning technique works?
  - (i) What is local minima problem?
  - (j) Distinguish between Predicate and Propositional logic
- Q.2 (a) "AI is both a science and a field of engineering" Discuss with the help of an example. (6.25)
- (b) Explain Tic-Tac-toe problem (6.25)
- Q.3 Explain the following search algorithms:
- (a) Depth first search (6.25)
  - (b) AO\* (6.25)
- Q.4 (a) Illustrate the use of first-order-logic to represent the knowledge. (7.5)
- (b) Describe mapping between facts and representation. (5)
- Q.5 (a) Differentiate between Inheritable knowledge and Inferential Knowledge? (7.5)
- (b) Discuss Inheritable knowledge by applying the steps to real world application of your choice. (5)
- Q6 (a) Explain syntactic processing (6.25)
- (b) Differentiate between syntactic process and semantic processing.(6.25)
- Q7 Write short note on the following:- (2x6.25=12.5)
- (a) Explanation Based Learning
  - (b) Learning by analog
- Q8 Write short notes on the following (any two):- (2x6.25=12.5)
- (a) Expert system
  - (b) Concept of uncertainty in Expert system
  - (c) LISP Programming

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