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Question Paper Code : 51390

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

Sixth Semester

Computer Science and Engineering

CS 2351/CS 61/10144 CS 601 – ARTIFICIAL INTELLIGENCE

**(Common to Seventh Semester – Electronics and Instrumentation
Engineering/Instrumentation and Control Engineering/Information Technology)**

(Regulations 2008/2010)

**(Common to PTCS 2351/10144 CS 601 – Artificial Intelligence for B.E. (Part-Time) Sixth
Semester – Computer Science and Engineering – Regulations 2009/2010)**

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. Define agent, agent function.
2. How to improve the effectiveness of a search based problem solving technique ?
3. State the reasons why the inductive logic programming is popular.
4. How TALL and ASK are used in first order logic ?
5. Define partial order planner ?
6. What are the differences and similarities between problem solving and planning ?
7. List any two applications of Temporal probabilistic models ?
8. What is explanation- based learning ?
9. List the issues that affect the design of a learning element.
10. How statistical learning differ from reinforcement learning ?

PART – B (5 × 16 = 80 Marks)

11. (a) Explain uninformed search strategies with suitable example.

OR

(b) Outline the components and functions of any one of the basic kinds of agent programs.

12. (a) Explain the forward chaining and backward chaining algorithm with an example.

OR

(b) Outline the main steps of the knowledge engineering process for creating a knowledge base in FOL.

13. (a) Explain the concept of planning with state space search using example.

OR

(b) Discuss the use of planning graph in providing better heuristic estimate with suitable example.

14. (a) Explain the method of handling approximate inference in Bayesian networks.

OR

(b) State the role of Hidden Markov models in speech recognition.

15. (a) How does decision tree supports for learning ? Explain with suitable example.

OR

(b) Write short notes on : (1) Statistical learning (2) Explanation based learning.