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**Question Paper Code: 31263**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Sixth Semester

Computer Science and Engineering

01UCS603 - ARTIFICIAL INTELLIGENCE

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define agent and state an example.
2. Summarize constraint satisfaction problem.
3. Illustrate knowledge based agent.
4. Discuss the algorithm for unification.
5. Classify two approaches in heuristics for state space search.
6. Examine conditional and multi body planning.
7. List and explain the kinds of random variables depending on the type of domain.
8. Discuss about filtering and smoothing.
9. Differentiate supervised and unsupervised learning.
10. Define Bayesian and parameter learning.

PART - B (5 x 16 = 80 Marks)

11. (a) Describe in detail about breadth first and depth first search with an example. (16)
- Or
- (b) Explain greedy best first search and A\* search in detail. (16)
12. (a) Explain about propositional logic and inference. (16)
- Or
- (b) Discuss in detail about backward chaining. (16)
13. (a) Illustrate in detail about partial order planning. (16)
- Or
- (b) Summarize hierarchical task network planning. (16)
14. (a) Discuss in detail about the process of acting under uncertainty. (16)
- Or
- (b) Describe the hidden Markov model. (16)
15. (a) Describe about learning decision trees. (16)
- Or
- (b) Illustrate in detail about passive reinforcement learning. (16)
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