KUMARAGURU
college of technology
character is life

Register Number:……

M.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2013)

Third Semester

COMPUTER SCIENCE AND ENGINEERING

P13CSTE51:Multi Agent Systems

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. Thermostat is an agent - Justify
2. Design a controller agent in concurrent MESTATEM for an infinitely renewable resource that can be processed by one agent at a given time.
3. List the activities in human practical reasoning
4. Distinguish between benevolent and self-interested agents
5. List the aspects of speech act with an example
6. Distinguish between agent communication and interaction protocols
7. How can tasks be distributed among cooperative agents
8. Differentiate between auction and negotiation
9. What are the domains in which multiagent systems can be used?
10. Can heuristic approximations be used for buyers in negotiations? How?

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

Q.No:11 is Compulsory

11. (i) What is the idea behind agent oriented programming? Illustrate by considering AGENTO programming language. (8)

    (ii) Elaborate on the view of agents as theorem provers by considering logic based agents (8)

12. (i) What is means-ends reasoning / planning? Explain. Illustrate using blocks world problem. (10)

    (ii) Why hybrid architectures are needed for agents? Explain. (6)

13. (i) How can result sharing enhance group performance? Illustrate by considering the case of distributed constrained heuristic search. (10)

(ii) How can agents act as tour guides? Explain. (6)

14. (i) Explain the task sharing coordination. Illustrate this method by considering Towers of Hanoi problem. (8)

(ii) What are coalitional games? With suitable examples, summarize the issues in the same. (8)

15. Explain in detail how auctions help in allocating a scare resource among multiple agents. With Suitable examples, Discuss in detail the categorization of auctions.

16. What is a task oriented domain? Explain in detail how negotiations happen in the same.

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