Register Number: ……..

M.E DEGREE EXAMINATIONS: NOV/DEC 2012

Third Semester

COMPUTER SCIENCE AND ENGINEERING

CSE585**:** Multi Agent Systems

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

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. What is an intelligent agent and how is the performance of an agent defined?
2. Differentiate between accessible and inaccessible environments.
3. Define the prisoner's dilemma.
4. State two dependence relations in Multi agent systems.
5. Define Pareto efficiency.
6. Distinguish between domain and application ontologies.
7. What is called Human Computer Interface?
8. What is called negotiation?
9. Define Corporate Regularity
10. Give the parameters of EOS

PART B (5 x 16 = 80 Marks)

11. a) (i) How do agents differ from objects and expert systems? Explain (8)

(ii) Write about abstract architectures for Intelligent Agents. (8)

(OR)

b) (i) What are the components of Concurrent MetateM agent and explain about it. (8)

(ii) Explain about how agents can act as Theorem Provers (8)

12. a) (i) What are reactive agents? Explain how Mars explorer experiments were performed. (10)

(ii) Give the limitations of reactive agents (6)

(OR)

b) (i) Define the notion of Nash equilibrium, and identify and explain the single Nash equilibrium using the prisoner's dilemma. (8)

(ii) Explain the advantages and disadvantages of hybrid agent architectures illustrate with example. (8)

13. a) (i) Explain (with references to the work of Austin, Searle, and Cohen et al as appropriate) what you understand by the term "speech act". (8)

(ii) Describe the structure of messages in the KQML agent communication languages. (8)

(OR)

b) (i) With the aid of examples, explain the role of the Knowledge Interchange Format (KIF) in agent communication languages. (8)

(ii) Write about any two types of auctions. (8)

14. a) (i) Explain about task-sharing and result sharing using a suitable example. (10)

(ii) Discuss in detail about coordination by mutual modeling (6)

(OR)

b) How is Agent-oriented analysis and design performed? Explain any three methods.

15. a) Write notes on

(i) Correspondence theory used in normal modal logics (8)

(ii) Common and distributed knowledge (8)

(OR)

b) Explain about agents that are used for Information Retrieval and Management

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