

Oct.-16/BE/Insem.- 173

B.E. (Computer Engineering)

SMART SYSTEM DESIGN AND APPLICATIONS

(2012 Pattern) (Semester - I)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q3 or Q.4, Q5 or Q6.
- 2) Figures to the right side indicate full marks.

Q1) a) For each of the following agents, develop a PEAS description of task environment. [6]

- i) Internet book shopping agent.
- ii) Robot soccer player.

b) Explain different types of learning aspects in AI. [4]

OR

Q2) a) Write short note on AO* algorithm. [4]

- b) Explain GAME as a search problem. [3]
- c) Explain Adversial search methods. [3]

Q3) a) Explain components of learning agent. [6]

b) Explain Turing test. [4]

OR

Q4) a) Explain A* algorithm with suitable example. [6]

b) Explain rational agent with diagram. [4]

Q5) a) What is meant by Alpha - Beta Pruning. [4]

b) Explain problem reduction methods. [6]

OR

Q6) a) Represent following facts using propositional logic. [6]

- i) All pompeian are Romans.
- ii) Caesar was a ruler.
- iii) All Romans were either loyal to Caesar or hated him.
- iv) Everyone is loyal to someone.
- v) People only try to assassinate rulers they are not loyal.
- vi) Marcus tried to assassinate ceasar.

b) Describe decision network with example. [4]