

Total No. of Questions : 10]

SEAT No. :

P4254

[Total No. of Pages : 2

[5354] - 673

B.E. (Computer Engineering)
SMART SYSTEM DESIGN & APPLICATIONS
(2012 Pattern) (Semester - I)

Time : 2½ hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.*
- 2) Figures to the right indicate full marks.*
- 3) Assume suitable data if necessary.*

- Q1)** a) Explain the various AI problems and AI techniques. [8]
b) What are various agent environments? Give PEAS representation for an agent. [6]
c) Write short notes on Kalman Filters. [4]

OR

- Q2)** a) Define problem formulation? Describe the components of problem with suitable example. [8]
b) Explain the hardware requirements for robotics? [6]
c) Explain rote learning with example. [4]

- Q3)** a) What is propositional logic? Explain with example. [4]
b) Explain A Star search algorithm using an example. [6]
c) Write short note on structure of intelligent agents. [4]

OR

- Q4)** a) Explain types of decision trees in data mining. [4]
b) What is Expert System? List out application of expert system? [6]
c) What is reasoning? What is its role in artificial intelligence. [4]

P.T.O.

- Q5)** a) Explain iterative deepening depth search algorithm with its function. [6]
b) Write a short note on: [8]
i) Inductive learning
ii) Learning Decision Tree.

OR

- Q6)** a) What is problem? What are the basic elements needed for solving single state problem and formalize the 8- Puzzle problem? [8]
b) Explain machine learning types. [6]
- Q7)** a) Define supervised learning? Explain and draw a decision tree for deciding whether to wait for a table if a restaurant currently has no free tables.[6]
b) Explain the steps to assess the performance of the learning algorithm with an example. [6]

OR

- Q8)** a) Explain in brief language models with suitable examples. [6]
b) Write a note on Bayesian Network. [6]
- Q9)** a) What are the basic inference task that must be solved in a generic temporal model. [6]
b) Write a short note on planning with operator. [6]

OR

- Q10)**a) Enumerate and explain the different. Edge profile using in edge detection. [6]
b) Write short note on biological neural network. [6]

