

Total No. of Questions : 10]

SEAT No. :

P2328

[Total No. of Pages : 2

[5254]-663

B.E. (Computer Engineering)

SMART SYSTEM DESIGN AND APPLICATIONS

(2012 Pattern) (End Semester)

Time : 2.30 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Question Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6, Q. 7 or Q. 8 Q. 9 or Q. 10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) What is artificial intelligence? Explain how AI system is different from a conventional computing system. [6]
- b) Explain the concept of hierarchical planning along with example. [6]
- c) Define Search problem. Solve 8 Queen problem as a space search problem. [8]

OR

- Q2)** a) Explain different environment types. [6]
- b) Explain CSP. Using CSP, explore the search space to solve the following crypt arithmetic problem. TAKE+ A + CAKE= KATE [8]
- c) How well defined problem is formed? Give example. [6]

- Q3)** a) Explain the concept of Decision Network with suitable example. [6]
- b) Write a short note on Kalman filters. [6]

OR

- Q4)** a) Explain Basis of Utility Theory. [6]
- b) Explain Baye's rule and its use with suitable example. [6]

P.T.O.

- Q5)** a) Explain in brief the concept of Support Vector Machine. [6]
b) Write a short note on Nonparametric Models. [6]

OR

- Q6)** a) What is Active Learning? [6]
b) Write a note on Artificial Neural Network. [6]

- Q7)** a) What are the Information Retrieval characteristics? How to evaluate and refine Information Retrieval System [6]
b) Write a note on Robot Hardware. [6]

OR

- Q8)** a) Explain the process of Image Formation. [6]
b) Explain Text Classification with suitable example. [6]

- Q9)** a) What is reinforcement Learning? [6]
b) Describe Decision Tree with suitable example. [8]

OR

- Q10)** a) Explain Syntactic analysis (Parsing) [6]
b) Write a short note on: [8]
i) Machine Translation
ii) Speech Recognition

