SEAT No. :

P2328

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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

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