May 2017

Total No. of Questions : 10]

SEAT No. :

P3628

[Total No. of Pages : 3

[5154]-673

B.E. (Computer Engineering)

SMART SYSTEM DESIGN & APPLICATION

(2012 Pattern) (End Semester)

Time : 2.30 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7or Q.8, Q.9 or Q.10*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Assume suitable data if necessary*
4) *Figures to the right indicate marks.*

Q1) a) Explain the concept of hierarchical planning along with example. [6]

b) Define artificial intelligence and the role of intelligent systems in smart applications. [6]

c) Using CSP, explore the search space to solve the following cryptarithmatic problem [8]

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OR

Q2) a) Write short note on foundations of artificial intelligence. [6]

b) Explain CSP. Using CSP, explore the search space to solve the following crypt-arithmetic problem. TWO + TWO = FOUR. [6]

c) What is Knowledge Engineering? Explain the steps. [8]

P.T.O.

Q3) a) What is the basic inference task that must be solved in a generic temporal model? [6]

b) Write a short note on decision trees with suitable examples. [6]

OR

Q4) a) Write a short note on Kalman filters. [6]

b) What are axioms of probability? Explain how to derive the useful facts from basic axioms with suitable examples. [6]

Q5) a) Explain in brief the concept of Support Vector Machine and its applications. [6]

b) Write a note on Artificial Neural Network. [6]

OR

Q6) a) Write short note on : [6]

i) Active Learning.

ii) Reinforcement Learning

b) What is smart system? Write its applications. [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) What are the methods of handling uncertain knowledge? Write down the major challenges in handling uncertain knowledge. [6]

b) Explain Text Classification with suitable example. [6]

Q9) a) What is Machine Learning? What are the different paradigms? **[6]**

b) What is Natural Language Processing(NLP)? Describe any 2 applications of NLP. **[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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