[6003]-540

T.E. (AI & DS) (Semester - I)

PATTERN RECOGNITION

(317522 (B)) (2019 Pattern) (Elective - I)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

   1)   *Answer Q. 1 or Q. 2 , Q. 3 or Q. 4 , Q. 5 or Q. 6, Q. 7 or Q. 8.*

   2)   *Neat diagrams must be drawn wherever necessary.*

   3)   *Figures to the right indicate full marks.*

   4)   *Assume suitable data, if necessary.*

Q1) a)   Discuss the Elements of Formal Grammars.   **[9]**

     b)   Explain the Chomsky Normal form with suitable example.   **[8]**

OR

Q2) a)   Give an Abstract View of Parsing Problem.   **[9]**

     b)   Describe Blocks Word Description String Generation example as Pattern Description.   **[8]**

Q3) a)   Differentiate between Homomorphism and Isomorphism.   **[9]**

     b)   Draw and Explain Grammatical Interface Model and its objectives.   **[8]**

OR

Q4) a)   Describe Clique finding algorithm with suitable example.   **[8]**

     b)   Explain the Design and Selection of Similarity Measures.   **[9]**

P.T.O.

Q5) a) Describe Characteristics of Neural Computing Applications. **[9]**

b) Explain CAM & other Neural Memory Structure. **[9]**

OR

Q6) a) Describe with neat diagram Artificial Neuron Activation and Output Characteristics. **[9]**

b) Explain the different reasons to adopt a Neural Computational Architecture. **[9]**

Q7) a) Draw & Explain structure of a Multiple Layer Feedforward Network.**[9]**

b) Explain Summary of the Back Propagation learning Procedure with suitable diagram. **[9]**

OR

Q8) a) How the character classification is done with Pattern Associator? **[9]**

b) Draw & explain how to train the feedforward network using Generalized delta Rule? **[9]**

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