Total No. of Questions : 8]

SEAT No. :

P7555

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T.E. (AI & DS)

PATTERN RECOGNITION

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

Time : 2 ½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.l or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data if necessary.***

Q1) a) Identify the different examples of String Generation as Pattern Description? **[9]**

b) What are the different types of String Grammar? Explain it? **[8]**

OR

Q2) a) Compare Grammar and Langugae with suitable example? **[9]**

b) Describe the Grammar Based Approach and its uses in detail? **[8]**

Q3) a) Clarify canonical definite finite state grammar (CDFSG) with suitable example? **[9]**

b) Identify Isomorphism if we are having two Graph G1 and G2, each with p nodes? **[8]**

OR

Q4) a) Examine various applications of Relational Graph to Pattern Recognition? **[8]**

b) Determine the Recursive procedure to find Cliques with suitable example? **[9]**

P.T.O.

Q5) a) CAM and other Neural Memory Structure? **[9]**

b) Draw and Explain Artificial Neuron Activation and output Characteristics? **[9]**

OR

Q6) a) Explain Neural Networks as a Black Box Approach? **[9]**

b) Describe the different reasons to adopt a Neural Computational Architecture? **[9]**

Q7) a) Draw & Explain Summary of the Back Propagation learning Procedure? **[9]**

b) Clarify how the character classification is done with Pattern Associator? **[9]**

OR

Q8) a) Draw & Explain how to train the feedforward network using Generalized delta Rule? **[9]**

b) Describe the structure of a Multiple Layer Feedforward Network? **[9]**

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