[6188]-202

B.E. (Information Technology) (Insem)
DEEP LEARNING
(2019 Pattern) (Semester -VII) (414443)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

    1)   Answer Q.1 or Q.2, and Q.3 or Q.4.

    2)   Neat diagrams must be drawn wherever necessary.

    3)   Figures to the right indicate full marks.

    4)   Assume suitable data, if necessary.

Q1) a)   Explain following terms related to multi-layer feed-forward networks.**[5]**

       i)   Biases

       ii)   Activation functions

   b)   Explain loss function for regression operation.   **[5]**

   c)   Define and explain the significance of learning rate of a model?   **[5]**

OR

Q2) a)   Explain loss function for classification operation.   **[5]**

   b)   Differentiate among RELU, LRELU and ERELU.   **[5]**

   c)   What is regularization? Explain the need for regularization.   **[5]**

Q3) a)   Explain the following hyper parameters for the convolutional layer. **[8]**

       i)   Filter size

       ii)   Output depth

       iii)   Stride

       iv)   Zero-padding

   b)   Explain convolution operation in CNN with a suitable example. Take 5*5 input data, 3*3 kernel data and calculate convoluted features. **[7]**

OR

Q4) a)   Draw and explain architecture of AlexNet.   **[7]**

   b)   Explain any four applications of CNNs with suitable diagrams. **[8]**

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