

Total No. of Questions : 8]

SEAT No. :

P6770

[Total No. of Pages : 2

[6181]-363

B.E. (Artificial Intelligence and Machine Learning)

DEEP LEARNING FOR AI

(2019 Pattern) (Semester - VII) (418543)

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) Assume suitable data, if necessary.*
- 3) Neat diagrams must be drawn wherever necessary.*
- 4) Figures to the right indicate full marks.*

Q1) a) Compare the Difference Between a Feedforward Neural Network and Recurrent Neural Network? **[6]**

b) Interpret how LSTM proves efficient over RNN? **[6]**

c) Explain exploding gradient descent problem for RNN. **[6]**

OR

Q2) a) Explain working of LSTM in details. **[10]**

b) What are the applications of a Recurrent Neural Network (RNN)? Also explain which type of RNN it belongs to. **[8]**

Q3) a) What are the applications of autoencoders? **[10]**

b) Explain sparse autoencoders. **[7]**

OR

Q4) a) What is a hyperparameter? Explain different hyperparameters that must be set before training. **[8]**

b) Explain denoising autoencoders in detail. **[9]**

Q5) a) When will you use transfer learning? Explain with examples. **[6]**

b) Draw Densenet architecture. **[6]**

c) Explain distributed representation? **[6]**

OR

P.T.O.

- Q6)** a) Explain domain adaptation. [6]
b) What are the advantages of Densenet? [6]
c) Why is the network called a Greedy Layer wise pretraining network?[6]

- Q7)** a) Explain GAN with example. Describe all its variants. [10]
b) Explain generative and discriminative models in GANs. [7]

OR

- Q8)** a) What are the advantages and disadvantages of the GAN model? [10]
b) Write a note on IMAGEN [7]

