

SPPU-BE-COMP-CONTENT – KSKA Git

Total No. of Questions : 8]

SEAT No. :

P6565

[6181]-115

[Total No. of Pages : 2

B.E. (Computer Engineering)

DEEP LEARNING

(2019 Pattern) (Semester - VIII) (410251)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Make suitable assumption whenever necessary.

Q1) a) Explain stride Convolution with example. **[6]**

b) Explain Padding and its types. **[6]**

c) Explain Local response normalization and need of it. **[6]**

OR

Q2) a) Explain ReLU Layer and its advantages. **[6]**

b) Explain Pooling layers and its types with examples. **[6]**

c) What are the applications of Convolution with examples? **[6]**

Q3) a) Draw CNN architecture and explain its working. **[6]**

b) Explain the types of Recurrent Neural Network **[6]**

c) Justify RNN is better suited to treat sequential data than a feed forward neural network. **[5]**

OR

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- Q4)** a) Explain Recurrent Neural Network with its architecture. [6]
b) Draw and explain architecture for Long Short-Term Memory (LSTM). [6]
c) Explain how the memory cell in the LSTM is implemented computationally? [5]

- Q5)** a) Explain Deep generative model with example. [6]
b) How does GAN training scale with batch size? [6]
c) List the applications of GAN network with description. [6]

OR

- Q6)** a) Draw and explain architecture of Boltzmann machine. [6]
b) Explain different types of GAN. [6]
c) Explain Deep Belief Network with diagram. [6]

- Q7)** a) Explain dynamic programming algorithms for reinforcement learning. [6]
b) What is deep reinforcement learning? Explain in detail. [6]
c) Explain Simple reinforcement learning for Tic-Tac-Toe. [5]

OR

- Q8)** a) Explain Markov decision process. [6]
b) Write Short Note on Q Learning and Deep Q-Networks. [6]
c) What are the challenges of reinforcement learning? Explain any four in detail. [5]

