M1- (PYQ)

Q) Explain feed forward NN (5)

Q) What are 3 classes of DL, etc explain each? (10)

Q) Design AND gate using perceptron (5)

M2- (PYQ)

Q) Explain Gradient Descent in DL (5)

Q) Explain ~~dropo~~ dropout method & its advantages (5)

Q) What are the diff. types of Gradient Descent methods, explain any 3 of them (10).

Q) What are L1 & L2 Regularizat^{n} methods (10)

Q) What is the significance of activat^{n} f^{n}s in NN, explain diff. types activat^{n} f^{n}s used in NN. (10).

Q) Explain dropout. How does it solve problem of overfitting? (5)

Q) What is an activat^{n} f^{n}? Describe any 4 activat^{n} f^{n}'s (10).

Q) Explain SGD & momentum based Gradient descent optimizat^{n} techniques (10).

Q) Explain early stopping, batch normalizat^{n} & data augmentat^{n} (10).

32×32×3 apply 10, 5×5 filters ×3 → 28×28 feature maps → 28×28×10 → 10, 28×28 feature maps

(16) params

↳ each filter has 5×5=25 params + 1 bias = 26 tot. params

PYQ - ∴ All filters → 26×10 = 260 params

H-4-

Q) Explain Pooling operation in CNN ? (5)

Q) Explain architecture of CNN with the help of diagram (10).

Q) Describe sequence learning problem (5).

Q) Explain CNN architecture in detail. Suppose, we have input volume of 32 * 32 * 3 for a layer in CNN & there are ten 5 * 5 filters with stride 1 & pad 2; calculate no. of parameters in this layer of CNN.

Q) Describe LeNET architecture.

H5-

Q) Explain LSTM model &, how it overcomes the limitation of RNN. (10).

Q) Explain GRU in detail (10).

Q) Explain RNN architecture in detail (10).

Q) Explain LSTM architecture (10).

Q) Explain vanishing & exploding gradient in RNNs (10).

H-6-

Q) What
mode

Q) Who

Q) Exp

M-6.-

1) What are the issues faced by Vanilla GAN models? (10).

2) What are GAN's comment on its applications (10.

3) Explain working of GAN. (10).

Q3 -

(Q) What are are undercomplete autoencoders? (5)

(Q) Explain main components of an Autoencoder & its architecture (10).

(Q) Explain any 3 types of autoencoders (10)

(Q) Explain denoising autoencoder model (5)