

Satyug Darshan Institute of Engineering & Technology, Faridabad

Department of Computer Science & Engineering

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Programme: BCA-DS	Year & Semester: 6th
Course Name: Machine Learning-II	Course Code: BCA-DS-312
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Unit I

Short answer questions

Q.N.	Question	KL
1	How model selection is done in Machine Learning.	K1
2	Define ensemble learning.	K1
3	Explain Statistical Learning Theory.	K2
4	Define bagging technique.	K1
5	State Random Forest.	K1

Long answer questions

Q.N.	Question	KL
1	Explain evaluation metrics used for Machine Learning algorithms.	K3
2	Discuss the importance of model selection in Machine Learning.	K3
3	Explain Statistical Learning Theory and its significance.	K4
4	Describe boosting and bagging techniques with examples.	K4
5	Explain Random Forest algorithm and its advantages.	K4

Unit II

Short answer questions

Q.N.	Question	KL
1	Define dimensionality reduction.	K1
2	State Principal Component Analysis (PCA).	K1
3	Define Linear Discriminant Analysis (LDA).	K1
4	Write about Kernel PCA.	K2
5	Define Independent Component Analysis (ICA).	K1

Long answer questions

Q.N.	Question	KL
1	Explain the need for dimensionality reduction in Machine Learning.	K3
2	Describe Principal Component Analysis with suitable example.	K4
3	Explain Linear Discriminant Analysis and compare it with PCA.	K4
4	Discuss Kernel PCA and its applications.	K3
5	Explain Factor Analysis and Independent Component Analysis.	K4

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Unit III

Short answer questions

Q.N.	Question	KL
1	Define perceptron model.	K1
2	State multilayer neural network.	K1
3	Define feature representation learning.	K2
4	Explain Deep Learning.	K1
5	State backpropagation.	K2

Long answer questions

Q.N.	Question	KL
1	Explain perceptron learning algorithm.	K3
2	Describe architecture of multilayer neural networks.	K3
3	Explain learning neural network structures.	K4
4	Discuss Deep Learning and feature representation learning.	K4
5	Compare shallow neural networks and deep neural networks.	K4

Unit IV

Short answer questions

Q.N.	Question	KL
1	Define Reinforcement Learning.	K1
2	Write the elements of Reinforcement Learning.	K1
3	Define policy in Reinforcement Learning.	K1
4	State policy search.	K2
5	Define adaptive dynamic programming.	K2

Long answer questions

Q.N.	Question	KL
1	Explain Reinforcement Learning framework in detail.	K3
2	Describe elements of Reinforcement Learning with examples.	K3
3	Discuss generalization in Reinforcement Learning.	K4
4	Explain policy search methods in Reinforcement Learning.	K4
5	Describe adaptive dynamic programming and its applications.	K4