SRM Institute of Science and Technology
Department of Computer Applications
Delhi – Meerut Road, Sikri Kalan, Ghaziabad, Uttar Pradesh – 201204

SRM
DELHI-NCR CAMPUS, GHAZIABAD (U.P)

Academic Year: 2023-24 (EVEN) **SET – A**

Test : Internal Examination I	**Date & Session : 29-01-2024 & AN**
Course Code & Title : UDS21401J (Deep Learning For Enterprise)	**Duration: 1 Hour 30 Mins**
Year & Sem : II/IV	**Max. Marks: 50**

Part – A

Answer all questions **(9Q x 2M = 18 Marks)**

Q. No	Questions	Marks	BL	CO	PO
1	Can Relu function be used in output layer? No	2	L1	1	2
2	Define the term cost function. $J(\theta_0,\theta_1) = \frac{1}{2m}\sum_{i=1}^{m}(h_\theta(x^{(i)})-y^{(i)})^2$	2	L1	1	1
3	Define Early Stopping in Overfitting.	2	L1	1	1
4	List out names of different layers of Autoencoder.	2	L1	1	1
5	Explain about perceptron.	2	L1	1	1
6	Write and describe about layers in Neural Network?	2	L1	2	1
7	What are the supervised learning algorithms in Deep learning?	2	L1	2	2
8	What is model deployment in the context of deep learning? A. The process of creating a deep learning model B. The process of training a deep learning model C. The process of making a trained model available for use in applications D. The process of fine-tuning model hyperparameters	2	L1	2	1
9	The number of nodes in the input layer is 10 and the hidden layer is 5. The maximum number of connections from the input layer to the hidden layer are A. 50 B. less than 50 C. more than 50 D. It is an arbitrary value	2	L2	2	2

Part – B

Answer all questions **2Q x 16M = 32 Marks**

Q. No	Questions	Marks	BL	CO	PO
10 (A)	Compare and contrast supervised and unsupervised learning algorithm.	16	L2	2	2
	(OR)				

10 (B)	Explain working of Autoencoder. Describe the work of generator and discriminator with Example.	16	L1	2	2
11 (A)	Write the difference between Forward Propagation and Backward Propagation.	16	L2	2	2
	(OR)				
11 (B)	Describe the following :- **a.** Weight **b.** Gradient Descent	16	L1	1	1

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Academic Year: 2023-24 (EVEN) **SET – B**

Test: Internal Examination- I **Course Code & Title: UDS 21402J Introduction to Computer Vision** **Year & Sem: II Year / IVSem**	**Date& Session : 30/01/2024 & AN** **Duration: 1:30 Hours** **Max. Marks: 50**

Part - A

Answer all questions **(9Qx 2M = 18 Marks)**

Q. No	Question	Marks	BL	CO	PO
1	Compare the Human vision and ComputerVision.	2	1	1	2
2	Write the Challenges of computer vision.	2	1	2	1
3	What do you understand by Medical image analysis?	2	2	1	1
4	Discuss about the concept of Object recognition.	2	1	1	4
5	Write the difference between Virtual reality And Augmented Reality.	2	1	2	2
6	Define the Different types of Image processing Techniques.	2	1	3	5
7	Describe the concept of independent Component Analysis.	2	2	3	6
8	Define Business Problem Identification.	2	2	2	6
9	Discuss the concept of Surveillance with example.	2	1	1	5

Part B

	Answer all questions	**2Q x 16M =32 Marks**			
10.	(A) Explain Train the computer vision model in details.	16	3	3	7
	(OR)				
	(B). Explain the Content-Based Image Retrieval with diagram.	16	2	2	5
11.	(A)Describe the concept of Data Ingestion and Data Pre-processing in Details	16	2	4	4
	(OR)				
	(B)Describe the Components of Computer vision solution andIterate the steps process with example	16	3	3	3

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Academic Year: 2023-24 (ODD) **SET – B**

Test : Internal Examination I	**Date & Session : 31/01/2024 AN**
Course Code & Title : UDS21403J , Working with Big Data	**Duration:1 Hour 30 Mins**
Year &Sem : II/ IV	**Max. Marks: 50**

Part - A

Answer all questions (9Q x 2M = 18 Marks)

Q. No	Question	Marks	BL	CO	PO
1	Explain the 6v's of Big Data.	2	1	1	1
2	Define the term Big data with its various advantages.	2	1	1	1
3	Demostrate the MongoDB command for deletion of document in a collection.	2	2	2	2
4	List any four tools used for big data analytics.	2	1	1	1
5	Differentiate between operational big data and analytical big data technology .	2	2	1	1
6	Define the term text mining in data mining.	2	1	3	3
7	Explain In memory analytics with its importance.	2	1	2	3
8	Differentiate between test extraction with text retrieval.	2	2	3	3
9	Differentiate between NoSql database and RDBMS.	2	2	2	3

Part B

	Answer all questions	2Q x 16M = 32 Marks			
11.	(A) Explain Apache storm with its architecture and also explain its key advantages and disadvantages.	16	1	2	3
	(OR)				
	(B)Explain predictive analytics with its model and also explain the key benefits with various use case of predictive analytics.	16	1	2	3
12.	(A)Differentiate between hadoop 1.0 and hadoop 2.0 architecture and also explain the various component of hadoop 1.0 architecture in detail.	16	2	2	2
	(OR)				
	(B) Discuss Apache spark architecture in detail and also explain the features of various component that are present in apache spark.	16	1	2	3

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Academic Year: 2023-24 (EVEN) **SET – B**

Test : Internal Examination I	**Date & Session : 01/02/2024 & AN**
Course Code & Title : UDS21404J Data Science for Enterprise	**Duration: 1 Hour 30 Minutes**
Year & Sem : II Year / VI Sem	**Max. Marks: 50**

Part - A

(9Q x 2M = 18 Marks)

Answer all questions

Q. No	Question	Marks	BL	CO	PO
1	Explain the need for data science.	2	1	1	1
2	Contrast the concept of streaming algorithm.	2	2	1	2
3	Describe the general learning model of machine learning.	2	1	2	3
4	Summarize the concept of compression in data science.	2	2	1	1
5	Solve the channel capacity of TV satellite having bandwidth of 10khz.	2	3	1	3
6	Reframe the flow chart of numerical optimization.	2	5	1	3
7	Compare the classification and regression problem.	2	2	2	2
8	Explain the curse of dimensionality reduction.	2	1	2	1
9	Compare the lossy and lossless compression in data science.	2	2	1	2

Part B

Answer all questions **2Q x 16M = 32 Marks**

10.	(A) Create a decision tree model for a problem and calculate the expected value for each decision node.	16	6	1	3
	(OR)				
	(B) Compare and summarize the types of ensemble methods.	16	2	1	2
11.	(A) Describe the concept of bias variance tradeoff in data science.	16	1	2	4
	(OR)				
	(B) Illustrate the working of data science. Explain each step of data science process.	16	5	2	3