Code: **21P61602** **SR21** **SET-3**

SRINIVASA INSTITUTE OF ENGINEERING AND TECHNOLOGY

UGC – Autonomous Institution

III B.Tech II Semester I MID Examinations, FEBRUARY – 2025

DEEP LEARNING

AIML

Time : **20 Mins**	Max. Marks:**20**			Date: 24-**02.2025**
Roll No:	Sign of the Student:			Marks Obtained:
Name:	Sign of invigilator:			Sign of Valuator:
CO	CO 1	CO 2	CO 3	Marks Obtained:
UNIT	I	II	III	Total Marks

1. What is a random forest? **[ ]**

a) A single decision tree b) A collection of decision trees

c) A type of neural network d) A type of machine learning algorithm

2. What is gradient boosting? **[ ]**

a) A method for training neural networks

b) A method for building decision trees sequentially

c) A type of machine learning algorithm d) A type of robot

3. What is accuracy in machine learning? **[ ]**

a) The number of correct predictions

b) The number of incorrect predictions

c) The ratio of correct predictions to total predictions

d) The ratio of incorrect predictions to total predictions

4. What is precision in machine learning? **[ ]**

a) The ratio of true positives to all positive predictions

b) The ratio of true negatives to all negative predictions

c) The ratio of true positives to all actual positives

d) The ratio of true negatives to all actual negatives

5. What is recall in machine learning? **[ ]**

a) The ratio of true positives to all positive predictions

b) The ratio of true negatives to all negative predictions

c) The ratio of true positives to all actual positives

d) The ratio of true negatives to all actual negatives

6. What is an F1-score? [ ]

a) The average of precision and recall

b) The sum of precision and recall

c) The product of precision and recall

d) The difference between precision and recall

7. What is a confusion matrix? [ ]

a) A table that shows the model's predictions compared to actual results

b) A graph that shows the model's accuracy

c) A chart that shows the model's precision and recall

d) A diagram that shows the model's F1-score

8. What is overfitting? [ ]

a) When the model performs well on training data but poorly on new data

b) When the model performs poorly on both training and new data

c) When the model is too simple

d) When the model is not trained enough

9. What is underfitting? [ ]

a) When the model performs well on training data but poorly on new data

b) When the model performs poorly on both training and new data

c) When the model is too complex

d) When the model is trained for too long

10. How can overfitting be prevented? [ ]

a) By using more training data b) By using a simpler model

c) By using regularization techniques d) All of the above

11. What is Deep Reinforcement Learning (DRL)? [ ]

a) A combination of Deep Learning and Reinforcement Learning

b) A type of Deep Learning network

c) A type of Machine Learning algorithm d) A type of robot

12. What are Spiking Neural Networks (SNNs) inspired by? **[ ]**

a) The human brain's neurons that fire in spikes

b) Artificial neural networks

c) Mathematical formulas d) Computer programs

13. What is a key feature of a Feedforward Neural Network (FNN)? **[ ]**

a) Information flows in one direction, from input to output

b) It can handle sequential data

c) It uses attention mechanisms d) It generates new data

14. What is a key feature of a Convolutional Neural Network (CNN)? **[ ]**

a) It is specialized for processing images

b) It can handle sequential data

c) It uses attention mechanisms

d) It generates new data

15. What is a key feature of a Recurrent Neural Network (RNN)? **[ ]**

a) It can handle sequential data

b) It is specialized for processing images

c) It uses attention mechanisms

d) It generates new data

16. What is a key feature of a Restricted Boltzmann Machine (RBM)? **[ ]**

a) It has connections only between the input and hidden layers

b) It can handle sequential data

c) It uses attention mechanisms

d) It generates new data

17. Which of the following is NOT a common application of Deep Learning in computer vision? [ ]

a) Object detection and recognition

b) Image classification

c) Language translation

d) Image segmentation

18. Which of the following is NOT a common application of Deep Learning in natural language processing (NLP)? [ ]

a) Language translation

b) Sentiment analysis

c) Image recognition

d) Speech recognition

19. Which of the following is NOT a common application of Deep Learning in reinforcement learning? [ ]

a) Game playing b) Robotics

c) Natural language processing d) Control systems

20. What is the significance of Deep Learning in the field of Artificial Intelligence? [ ]

a) It has led to major advancements in various fields, pushing the boundaries of AI capabilities

b) It is a simple and easy-to-understand technology

c) It has limited applications and is not widely used

d) It is a passing trend with no real impact