

P.V.P Siddhartha Institute of Technology					Signature of Invigilator with date:	Marks Obtained:	
Department of Computer Science and Engineering							
Course: B.Tech	Year: IV	Semester: I	Objective: I				
Regulation: PVP20	Maximum Marks:10Marks		Session: F.N				
A.Y:2023-24	Date: 20-11-2023		Duration: 20 min				
Subject Code: 20CS4701A			Subject Name: Deep Learning				
Registered Number:			Name:				
Answer all the Questions. Each Question carries ½ Mark					20×½ M =10M		
S.No	Question				CO	Level	Answer
1.	What is the primary purpose of convolutional layers in a CNN?				CO1	L2	
	a) Activation	b) Pooling	c) Feature extraction	d) Fully connected layers			
2.	Which layer in a CNN is responsible for reducing the spatial dimensions of the input volume?				CO1	L2	
	a) Convolutional layer	b) Activation layer	c) Pooling layer	d) Fully connected layer			
3.	What is the purpose of the activation function in a CNN?				CO1	L2	
	a) Normalize the input data	b) Introduce non-linearity	c) Reduce the dimensionality of the data	d) Summarize the features			
4.	In a CNN, what does the term "stride" refer to?				CO1	L2	
	a) Learning rate	b) The size of the filter	c) The step size for sliding the filter over the input	d) Number of filters			
5.	What is the function of the fully connected layers at the end of a CNN?				CO1	L2	
	a) Feature extraction	b) Reduce dimensionality	c) Global pooling	d) Classification			
6.	Which layer is typically used to address overfitting in a CNN?				CO1	L2	
	a) Convolutional layer	b) Pooling layer	c) Dropout layer	d) Fully connected layer			
7.	What is the purpose of data augmentation in training a CNN?				CO1	L2	
	a) Increase model complexity	b) Reduce training time	c) Improve generalization by introducing variations in the training data	d) Decrease model size			
8.	What is the advantage of using pre-trained CNN models for new tasks?				CO1	L2	
	a) Faster training	b) Smaller model size	c) Improved accuracy with less data	d) Reduced number of layers			
9.	What is the role of the softmax activation function in the output layer of a CNN for multi-class classification?				CO1	L2	
	a) Introduce non-linearity	b) Normalize the output probabilities	c) Reduce dimensionality	d) Enhance feature extraction			
10.	In an LSTM cell, what is the purpose of the forget gate?				CO1	L2	
	a) It decides which information to throw away	b) It decides the output of the cell.	c) It decides which information to add to the cell state.	d) It decides the input to the cell.			

	from the cell state.						
11.	Which of the following is a potential issue with using RNNs for long sequences?				CO1	L2	
	a) The vanishing gradient problem	b) The exploding gradient problem	c) Both a and b	d) Neither a nor b			
12.	Which component of a sequence-to-sequence model is responsible for transforming the input sequence into a fixed-size context vector?				CO1	L2	
	a) Encoder	b) Decoder	c) Attention mechanism	d) Embedding layer			
13.	What is the advantage of using LSTM or GRU over traditional RNNs?				CO1	L2	
	a) LSTMs and GRUs are less prone to overfitting	b) LSTMs and GRUs can capture long-term dependencies more effectively	c) LSTMs and GRUs require fewer parameters	d) LSTMs and GRUs are faster in terms of training			
14.	Which gate in an LSTM is responsible for deciding what new information to store in the cell state?				CO1	L2	
	a) Input gate	b) Forget gate	c) Output gate	d) Update gate			
15.	What is the main purpose of the hidden state in a recurrent neural network?				CO1	L2	
	a) Stores long-term memory	b) Output of the network	c) Captures short-term dependencies in the input sequence	d) It is used for updating the parameters of the network			
16.	What is the spectrogram commonly used for in the context of speech recognition?				CO1	L2	
	a) Feature extraction from audio signals	b) Text-to-speech synthesis	c) Speaker identification	d) Noise reduction			
17.	Which activation function is commonly used in the hidden layers of convolutional neural networks?				CO1	L2	
	a) Sigmoid	b) Linear	c) ReLu	d) Tanh			
18.	What is the purpose of data augmentation in computer vision tasks?				CO1	L2	
	a) To reduce the size of the dataset.	b) To increase the computational complexity.	c) To artificially increase the diversity of the training dataset.	d) To decrease the generalization capability of the model.			
19.	What is the primary advantage of using convolutional neural networks in computer vision tasks?				CO1	L2	
	a) Better handling of sequential data.	b) Ability to capture long-term dependencies.	c) Parameter sharing and translation invariance.	d) Improved interpretability of features.			
20.	What type of neural network architecture is commonly used for speech recognition tasks?				CO1	L2	
	a) Recurrent Neural Network	b) Convolutional Neural Network	c) Long Short-Term Memory	d) Transformer			