Weekly Test - 3 Result

Questions with correct answer and the answer you marked............

Q1:Which of the following gives non-linearity to a neural network?

A : Stochastic Gradient Descent   B : Rectified Linear Unit
C : Convolution function   D : None of the above
Correct Answer : B   Your Marked Answer : B

Q2:In training a neural network, you notice that the loss does not decrease in the few starting epochs.The reasons for this could be:

1.   The learning is rate is low
2.   Regularization parameter is high
3.   Stuck at local minima
What according to you are the probable reasons?
A : 1 and 2   B : 2 and 3
C : 1 and 3   D : Any of these
Correct Answer : D   Your Marked Answer : D

Q3: What is the sequence of the following tasks in a perceptron?

1.   Initialize weights of perceptron randomly
2.   Go to the next batch of the dataset
3.   If the prediction does not match the output, change the weights
4.   For a sample input, compute an output
A : 1, 2, 3, 4   B : 4, 3, 2, 1
C : 3, 1, 2, 4   D : 1, 4, 3, 2
Correct Answer : D   Your Marked Answer : D

Q4:Instead of trying to achieve absolute zero error, we set a metric called Bayes error which is the error we hope to achieve. What could be the reason for using Bayes error?

A : Input variables may not contain complete information about the output variable
B : System (that creates input-output mapping) may be stochastic
C : Limited training data
D : All the above
Correct Answer : D   Your Marked Answer : D

Q5:Which of the following statement is the best description of early stopping?

A : Train the network until a local minimum in the error function is reached
B : Simulate the network on a test dataset after every epoch of training. Stop training when the generalization error starts to increase
C : Add a momentum term to the weight update in the Generalized Delta Rule, so that training converges more quickly
D : A faster version of backpropagation, such as the `Quickprop' algorithm
Correct Answer : B   Your Marked Answer : B

Q6:For a classification task, instead of random weight initializations in a neural network, we set all the weights to zero. Which of the following statements is true?

A : There will not be any problem and the neural network will train properly
B : The neural network will train but all the neurons will end up recognizing the same thing
C : The neural network will not train as there is no net gradient change
D : None of these
Correct Answer : B   Your Marked Answer : B

Q7: Consider the scenario. The problem you are trying to solve has a small amount of data. Fortunately, you have a pre-trained neural network that was trained on a similar problem. Which of the following methodologies would you choose to make use of this pre-trained network?

A : Re-train the model for the new dataset
B : Assess on every layer how the model performs and only select a few of them
C : Fine tune the last couple of layers only
D : Freeze all the layers except the last, re-train the last layer
Correct Answer : D   Your Marked Answer : D

Q8:What is the right order for text classification model components?

1.   Text cleaning
2.   Text annotation
3.   Gradient descent
4.   Model tuning
5.   Text to predictors
A : 12345   B : 13425
C : 12534   D : 13452
Correct Answer : C   Your Marked Answer : C

Q9: What are the possible features of a text corpus?

1.   Vector notation of the word
2.   Part of Speech Tag
3.   Basic Dependency Grammar
4.   Entire document as a feature
A : 123   B : 1234
C : 12345   D : 123456
Correct Answer : C   Your Marked Answer : A

Q10:Collaborative Filtering and Content-Based Models are the two popular recommendation engines, what role does NLP play in building such algorithms.

A : Feature Extraction from text
B : Measuring Feature Similarity
C : Engineering Features for vector space learning model
D : All of these
Correct Answer : D   Your Marked Answer : D

Q11:Which of the following features can be used for the accuracy improvement of a classification model?

A : Frequency count of terms   B : Vector Notation of sentence
C : Part of Speech Tag   D : All of these
Correct Answer : D   Your Marked Answer : D

Q12:You have created a document term matrix of the data, treating every tweet as one document. Which of the following is correct, in regards to the document term matrix?

1.   Removal of stopwords from the data will affect the dimensionality of data
2.   Normalization of words in the data will reduce the dimensionality of data
3.   Converting all the words in lowercase will not affect the dimensionality of the data
A : Only 1   B : Only 2
C : Only 3   D : 1 and 2
Correct Answer : D   Your Marked Answer : D

Q13:Which of the following techniques can be used for the purpose of keyword normalization, the process of converting a keyword into its base form?

1.   Lemmatization
2.   Levenshtein
3.   Stemming
4.   Soundex

A : 1 and 2   B : 2 and 4
C : 1 and 3   D : 1, 2, 3 and 4
Correct Answer : C   Your Marked Answer : C

Q14:Which of the following is a challenge when dealing with computer vision problems?

A : Variations due to geometric changes (like pose, scale etc)
B : Variations due to photometric factors (like illumination, appearance etc)
C : Image occlusion
D : All of the above
Correct Answer : D   Your Marked Answer : D

Q15:Suppose we have a grayscale image, with most of the values of pixels being the same. What can we use to compress the size of the image?

A : Encode the pixels with same values in a dictionary
B : Encode the sequence of values of pixels
C : No compression can be done
D : None
Correct Answer : A   Your Marked Answer : A

Q16:Match the following image formats to their correct number of channels

*   GrayScale
*   RGB
I.   1 channel
II.   2 channels
III.   3 channels
IV.   4 channels
A : RGB -> I, GrayScale-> III
B : RGB -> IV, GrayScale-> II
C : RGB -> III, GrayScale -> I
D : RGB -> II, GrayScale -> I
Correct Answer : C   Your Marked Answer : C

Q17:Which of the following is an example of a low-level feature in an image?

A : HOG
B : SIFT
C : HAAR features
D : All of the above
Correct Answer : D   Your Marked Answer : D

Q18:Which of the following data augmentation technique would you prefer for an object recognition problem?

A : Horizontal flipping   B : Rescaling
C : Zooming in the image   D : All of the above
Correct Answer : D   Your Marked Answer : D

Q19: Mach Band Effect is an optical illusion

A : TRUE   B : FALSE
C : Can be true or false   D : Cannot say
Correct Answer : A   Your Marked Answer : A

Q20:Which of the following SGD variants is based on both momentum and adaptive learning?

A : RMSprop   B : Adagrad
C : Adam   D : Nesterov
Correct Answer : C   Your Marked Answer : C

Q21:In case of missing data in an informative feature, which amongst these might be an effective method to deal with the problem?

A : Feature Dropping   B : Feature Scaling
C : Row Dropping   D : None of the above
Correct Answer : C   Your Marked Answer : C

Q22:Which of the following is true about hypothesis testing?

A : answering yes/no questions about the data
B : estimating numerical characteristics of the data
C : describing associations within the data
D : modelling relationships within the data
Correct Answer : A   Your Marked Answer : A

Q23:How many main statistical methodologies are used in data analysis?

A : 2   B : 3   C : 4   D : 5
Correct Answer : A   Your Marked Answer : A

Q24:In descriptive statistics, data from the entire population or a sample is summarized with?

A : integer descriptors   B : floating descriptors
C : numerical descriptors   D : decimal descriptors
Correct Answer : C   Your Marked Answer : C

Q25:Choose the correct statement.

A : The exponent of a normally distributed random variables follows what is called the log-normal distribution
B : Sums of normally distributed random variables are again normally distributed even if the variables are dependent
C : The square of a standard normal random variable follows what is called chi-squared distribution
D : All of the mentioned
Correct Answer : D   Your Marked Answer : D