## Google Cloud Computing

### (Jul-Oct 2024)

### Assignment- Week 8
### TYPE OF QUESTION: MCQ/MSQ

**Number of questions**: 10                                    **Total mark: 10 X 1 = 10**

---

### QUESTION 1:

Variables in TensorFlow are also known as _____

a) tensor variable
b) tensor keywords
c) tensor attributes
d) tensor objects

**Correct Answer: (d)**

**Detailed Solution:** Variables in TensorFlow are also known as tensor objects. These objects hold the values which can be modified during the execution of the program.

---

### QUESTION 2:

What is the full form of XLA in TensorFlow?
a) Xtreme Linear Algebra
b) Accelerated Linear Algebra
c) Unknown Linear Algebra
d) X Linear Algebra

**Correct Answer: (b)**

**Detailed Solution:** XLA (Accelerated Linear Algebra) is a domain-specific compiler for linear algebra that can accelerate TensorFlow models with potentially no source code changes.

---

### QUESTION 3:

The last layer of deep neural network is called the _____
a) hidden layer
b) output layer
c) input layer
d) none of the above

**Correct Answer: (b)**

**Detailed Solution:** The first layer is called the Input Layer. The last layer is called the Output Layer. All layers in between are called Hidden Layers.

## QUESTION 4:

Which of the following is NOT a feature of Cloud Vision API?
a) Detecting objects in an image
b) Analyzing text in an image
c) Translating text in an image
d) Converting audio into text

**Correct Answer: (d)**
**Detailed Solution:** Cloud Vision API does not support converting audio into text. This feature is provided by the Cloud Speech API.

## QUESTION 5:

What is the purpose of sentiment analysis in natural language processing?
a) To identify the author of a text
b) To determine the tone or emotion expressed in a text
c) To translate a text from one language to another
d) To summarize the main points of a text

**Correct Answer: (b)**
**Detailed Solution:** Sentiment analysis is a NLP task that involves analyzing a text to determine the overall tone or emotion expressed, such as positive, negative, or neutral

## QUESTION 6:

Which GCP service enables scalable and distributed training of ML models using TensorFlow?
a) Google Cloud Dataflow
b) Google Cloud Pub/Sub
c) Google Cloud BigQuery
d) Google Cloud ML Engine

**Correct Answer: (d)**
**Detailed Solution:** Google Cloud ML Engine is the GCP service that enables scalable and distributed training of ML models using TensorFlow, an open-source machine learning framework.

## QUESTION 7:

What is the purpose of TensorFlow's eager execution mode?
a) To enable dynamic graph construction and execution
b) To enable distributed training across multiple GPUs
c) To optimize memory usage during model training
d) To provide a high-level API for building ML models

**Correct Answer: (a)**

**Detailed Solution:** TensorFlow's eager execution mode is a feature that allows for immediate evaluation and execution of operations in TensorFlow without explicitly building a static computational graph. In the traditional TensorFlow workflow, users would define a graph of operations and then execute the graph in a separate session.

---

## QUESTION 8:
Cloud AutoML is a suite of _____ services offered by Google Cloud Platform.
a) Machine learning
b) Data analytics
c) Big data
d) Cloud computing

**Correct Answer: (a)**
**Detailed Solution:** Cloud AutoML is a suite of machine learning services provided by Google Cloud Platform (GCP). It offers a range of services and tools that enable users to build and deploy custom machine learning models without requiring extensive expertise in machine learning or programming.

---

## QUESTION 9:
Fill in the blanks: Machine learning is a way to use standard _____ to derive _____ insights from data and make repeated decisions.
a) intelligence, technical
b) techniques, intelligent
c) predictions, algorithmic
d) algorithms, predictive

**Correct Answer: (d)**
**Detailed Solution:** As per the definition, machine learning is a way to use standard algorithms to derive predictive insights from data and make repeated decisions

---

## QUESTION 10:
Statement 1: Artificial intelligence is a subarea of machine learning
Statement 2: Deep learning is a special type of machine learning

Please select the correct option.
a) Only Statement 1 is true
b) Only Statement 2 is true
c) Both Statement 1 and 2 are true
d) Both Statement 1 and 2 are false

**Correct Answer: (b)**
**Detailed Solution:** Machine learning is a subarea of AI and deep learning is a special type of

machine learning technique