| emblem | **GOVERNMENT OF PAKISTAN**  NATIONAL VOCATIONAL & TECHNICAL TRAINING COMMISSION  Headquarters, Plot No. 38, Kirthar Road, Sector H-9/4, Islamabad  Phone: 051-9044355, Fax: 051-9206638, http://navttc.gov.pk | navttc-mono.jpg |
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**PRIME MINISTER’S PRIME MINISTERS YOUTH SKILL DEVELOPMENT (PMYSDP) PROGRAM(PHASE-I, BATCH-IV)**

**Trainee Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Father Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CNIC# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**FINAL ASSESSMENT OF THREE MONTHS COURSE**

**COURSE NAME: Artificial Intelligence**

Duration: 4 Hours Total Marks: 100

**Theory Section 10 Marks**

**Question 1: Multiple Choice Questions (10 marks)**

**Instructions:**

1. This section consists of Multiple-Choice Questions (MCQs).
2. Choose the most appropriate option among the given choices.
3. Each question carries 1 mark.
4. There is no negative marking.
5. Artificial Intelligence is about\_\_\_\_\_.
6. Playing a game on Computer
7. Making a machine Intelligent
8. Programming on Machine with your Own Intelligence
9. Putting your intelligence in Machine

2. Identify the type of learning in which labeled training data is used.

1. Semi unsupervised learning
2. Supervised learning
3. Reinforcement learning
4. Unsupervised learning

3. Which of the following is an expansion of Artificial Intelligence application?

a) Game Playing

b) Planning and Scheduling

c) Diagnosis

d) All of the mentioned

4. Machine learning is a subset of which of the following.

1. Artificial intelligence
2. Deep learning
3. Data learning
4. None of the above

5. Which of the following is an example of supervised learning?

a) Clustering

b) Reinforcement Learning

c) Regression

d) Association Rule Learning

6) If a robot is able to change its own trajectory as per the external conditions, then the robot is considered as the\_\_

1. Mobile
2. Non-Servo
3. Open Loop
4. Intelligent

7. In machine learning, what do we call the process of feeding some data to the model and adjusting its parameters to make better predictions?

a) Training

b) Testing

c) Predicting

d) Evaluating

8. Which of the following libraries is commonly used in Python for machine learning and deep learning?

a) Pandas

b) Matplotlib

c) TensorFlow

d) NumPy

9. Which type of neural network is primarily used for handling sequential data, such as time series and natural language data?

a) CNN (Convolutional Neural Network)

b) RNN (Recurrent Neural Network)

c) MLP (Multilayer Perceptron)

d) GAN (Generative Adversarial Network)

10. Which of the following are common classes of problems in machine learning?

1. Regression
2. Classification
3. Clustering
4. All of the above

**Practical Section 90 Marks**

**Question 2:** Build a CNN Based Classifier for Classifying the Common objects using CIFAR10 Datasets.

Requirements:

* Five Number of Convolutional 2D Layers starting with 1024 filters.
* Kernel size 3 x 3
* Two Average Pooling Layers, Each after two Convolutional 2D layers.
* Stride 2
* Padding ‘valid’
* Optimizer Adam
* Loss function catagorical\_crossentropy

Best of Luck