

MODULE CODE AND TITLE: MACHINE LEARNING

DEPARTMENT: ICT

Code: ITLML801

29/12/2023

FORMATIVE ASSESSMENT / 20

Learning Outcome I:

Class 28IT Reg no 23RP00815

1. What is the basic idea of Machine Learning?/ 2marks
☒ A. To use data to teach a computer program how to perform a specific task.
B. To use natural intelligence to teach a computer program how to perform a specific task.
C. To use explicit programming to teach a computer program how to perform a specific task.
D. To use statistical analysis to teach a computer program how to perform a specific task.
2. What is the best way to handle missing values in data?/ 2marks
☒ a. Delete the rows with missing values
b. Replace the missing values with the mean
c. Replace the missing values with the median
d. Replace the missing values with zero
3. What is the most common type of normalization used in machine learning?/ 2 marks
☒ A. Z-Score Normalization
B. Min-Max Normalization
C. Decimal Scaling
D. Feature Scaling
4. What is the use of machine learning in stock market trading?/ Marks
a. To automate tasks such as scheduling, reminders, and other daily tasks.
b. To suggest products to customers based on their purchase history.
☒ c. To analyze and predict stock prices to make better trading decisions and increase profits.
d. To diagnose medical conditions accurately and timely.
5. What is the goal of EDA?/ 2 marks
☒ a. To identify correlations between variables
b. To identify outliers
c. To build a predictive model
d. To identify trends in the data

5. In supervised learning, what is the process of using an algorithm to determine an output based on a set of given inputs? / 2 Marks

- a. Classification
- b. Feature engineering
- ☒ c. Regression
- d. Clustering

6. Machine learning is becoming increasingly popular and is being used in everyday life without us even realizing it. List Some applications of machine learning in real world? / 4 marks

7. Give at least three main types of machine learning models? / 3 marks

8. What is an imputation? list two techniques of imputations? / 3 marks

6 (i) face recognition

(ii) language translation

(iii) Automatic car driving

(iv) to suggest product to customers

(v) to analyse and predict stock prices

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7 (i) Un supervised model This model uses unlabelled data point.

(ii) Supervised model This model uses labelled data to make relationship between independent and dependent variables.

(iii) Reinforcement model This model learns information from environment by taking actions in long run.

8. Imputation is a method of ~~sepal~~ replacing the missing values with other values

- (i) mean / mode
- (ii) encoding method
- (iii) median imputation method

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