QP CODE:
H2073

Enrollment Number: ……

Name: ……

M.A. DEGREE EXAMINATIONS, MARCH 2026
Fourth Semester
M.A. Economics
M23EC02SC – Artificial Intelligence and Machine Learning
(2023 July admissions)

Time: 3 Hours **Max Marks: 70**

Section A

Answer any ten of the following questions in a word or sentence each. Each question carries 1 mark.

1. Define Artificial Intelligence.
2. What is EDA?
3. What is classification in Machine Learning system?
4. Define Evaluation Matrix.
5. Mention any two advantages of python.
6. Name a built-in module in Python.
7. Name a data visualization library in python.
8. Mention the primary goal of EDA.
9. "Machine Learning is a subset of AI"- Substantiate it.
10. Name any two graphs used in EDA.
11. Mention any two classification algorithms.
12. How is accuracy of Evaluation Matrices computed?
13. Give an example of a mutable datatype.
14. Define a package.
15. Name the module used to create contingency table.

(1X10=10)

Section B

Answer any five of the following questions in two or three sentences each. Each question carries 2 marks.

16. Explain any two categories of AI.
17. What is outlier detection?
18. Describe K Means clustering.
19. Explain AUC.

20. Describe the interactive mode of python programming.
21. Explain break statement with an example.
22. Explain the role of Matplotlib in Data Visualization and its role in Economic Data Analysis.
23. Explain Descriptive Statistics with Python.
24. Explain hypothesis testing in Inferential Statistics.
25. Define data and algorithm in context of Machine Learning.

(2X5=10)

Section C

Answer any five of the following questions in a paragraph each. Each question carries 4 marks.

26. Explain the basic processes of Machine Learning.
27. Describe the main steps in data cleaning.
28. Explain Linear Regression model in Machine Learning.
29. Explain any two instances where accuracy alone cannot be relied on.
30. Describe a) Keywords in Python b) Identifiers in Python
31. Explain the decision statements in Python.
32. Describe the different types of bar graphs.
33. Compare Descriptive and Inferential Statistics.

(4X5=20)

Section D

Answer any three of the following questions in two pages each. Each question carries 10 marks.

34. Explain the types of Machine Learning algorithms.
35. Describe the main stages of data preprocessing.
36. Explain the concept of Dimensionality reduction in Machine Learning.
37. Explain Python Operators.
38. Describe the steps to create a user defined module in Python.
39. Explain the Contingency tables in Python.

(10X3=30)