

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

1	3	4	2	2
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Exam. Code :

5	0	4	2
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**Bachelor of Computer Application (FYUP) 2nd Semester
(2055)**

**INTRODUCTION TO ARTIFICIAL INTELLIGENCE &
DATA SCIENCE**

Paper : NBCA-202

Time Allowed : Three Hours]

[Maximum Marks : 45

Note :— Attempt **five** questions in all, selecting **one** question each from Units, I, II, III and IV. Question No. **9** is compulsory. All questions carry equal marks.

UNIT—I

1. Write short notes on : History of AI and Ethical issues of AI. 4+5=9
2. (i) List five phases of NLP.
(ii) Discuss AI agents and their interaction with environment. 4+5=9

UNIT—II

3. Write short notes on : Types of data and data reduction with example. 4+5=9
4. Discuss data integration and transformation in detail. 4+5=9

UNIT—III

5. (i) Discuss Data validation with an example.
(ii) List five functions to manage data using Math or Statistical functions. $4+5=9$
6. Write short note on advanced filtering and importance of spreadsheet based softwares in data management. $4+5=9$

UNIT—IV

7. Discuss hlookup, vlookup, goal seek, sorting text data and pivot table using examples. $2+2+2+2+1=9$
8. Design a table with four columns (Roll No, Name, Test-1 Score, Total Score). Total score is 1.5 times of test-1 score. Design a chart for this table using five records to show legends, line and bar charts for test-1 and Total scores. Also apply goal seek to get test-2 score at least 80% for all records. $2+2+2+3=9$

(Compulsory Question)

9. (i) List types of AI.
(ii) List phases of data science life cycle.
(iii) Give formula in spreadsheet to sort few rows using selected data range.
(iv) List three types of data charts. $2+2+3+2=9$