

M.Sc. - II (Computer Science) (NEP Pattern) Semester-IV  
**04MSCCS01 - Paper-I : Data Science**

P. Pages : 2

Time : Three Hours



**GUG/S/25/16332**

Max. Marks : 80

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- Notes :
1. All the questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagrams wherever necessary.
  3. Avoid vague answers and write specific answers related to questions.

**Either:**

1. a) What do you mean by Data Science? Explain the foundation of data science in brief. 8
- b) Discuss the different data security issues in data science projects. 8

**OR**

- c) Describe the Area and scope of data science in detail. 8
- d) Write a detail note on data cleaning. 8

**Either:**

2. a) Define Artificial intelligence and explain its significance. 8
- b) Explain AI Techniques and their characteristics in detail. 8

**OR**

- c) What is production system in AI? Explain. 8
- d) Explain Depth first search strategies in detail. 8

**Either:**

3. a) Explain generate and test algorithm with suitable example. 8
- b) What is self learning in AI? Explain. 8

**OR**

- c) Discuss the limitations of minimax algorithm. 8
- d) Explain multiple regression and its application. 8

**Either:**

4. a) Define machine learning. Explain its relationship with data mining. 8
- b) What is Association Rule mining (ARM)? Explain its use in detail. 8

**OR**

- c) Describe classification. State the difference between classification and regression. **8**
- d) Write a detail note on clustering. **8**

**5.** Solve all the questions.

- a) Explain data discretization in brief. **4**
- b) What is the use of AI in real world? Explain. **4**
- c) Explain polynomial Regression in brief. **4**
- d) Describe the measures of Interestingness. **4**

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