INDIAN INSTITUTE OF MANAGEMENT & COMMERCE
DEGREE & P.G COLLEGE, An Autonomous College
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B.Sc.(M.S.Ds.) III Sem.

Data Engineering with Python

Question Bank

Unit-I

1. Explain Data Analysis Sequence.
2. Explain Data Acquisition Pipeline
3. Explain different types of Files
4. Explain the process of reading and writing data with CSV, Text, JSON and XML files.
5. Write a program for reading and writing data with Binary files.
6. What is Pickle Module?
7. Write about Python.os

Unit-II

1. Explain various HTML tags
2. What is Regular Expression? Explain various methods of Regular Expression.
3. What are the various special characters in Regular Expression?
4. Write about Glob module
5. Explain the process of creating table in MySQL.
6. Write about CRUD operations in Database.

Unit-III

1. What is NumPy? Explain the process of creating NumPy Arrays.
2. What are the various attributes of arrays?
3. Explain various Mathematical functions in NumPy
4. Explain the following:
   (a) Array Indexing
   (b) Slicing in Arrays
   (c) Changing shape of Array
   (d) Stacking and Splitting of Arrays
5. What are the various Arithmetic operations on NumPy.

Unit-IV

1. What is Pandas? Explain Series and DataFrame in Pandas.
2. How to reshape data in Pandas?
3. Explain the process of handling missing data in Pandas.
4. What is Plotting? Explain basic plotting(Line Plot, Bar Graph, Scatter Plot, Histogram, Pie-Chart, Area Plot) with PyPlot.
5. Explain various Plot types(Box Plot, Stem Plot, Stack Plot,Error Plot,Polar Plot) with code.
6. Write a simple program with matplotlib