INDIAN INSTITUTE OF MANAGEMENT & COMMERCE
DEGREE & P.G COLLEGE, An Autonomous College
Sponsored by VASAVI FOUNDATION & Affiliated to OSMANIA UNIVERSITY
RE-ACCREDITED BY NAAC WITH "A+" GRADE
An ISO 21001 : 2018 Certified College
6-1-91, Adj. to Telephone Bhavan, Khairatabad, Hyderabad-500 004 Telangana, INDIA
E-mail Id: iimc1973@gmail.com / info@iimchyd.ac.in, Website: www.iimchyderabad.com / www.iimchyd.ac.in
Phones : 2323 7902, 2323 1542 Mobile : 95531 62767

B.Sc.(M.S.Ds.) I Sem.

Problem Solving and Python Programming

Question Bank

Unit-I

1. Explain about Computer System?
2. Explain Algorithm, Flowchart and Pseudocode with examples **(Long-Answer Question)**
   (a) Write an Algorithm to find the Area of a Circle.
   (b) What are the various symbols in Flowchart? Draw a Flowchart to check whether the given number is Even or Odd.
   (c) Write a Pseudocode to add two numbers.
3. Write a Python Interactive Mode and Python Interpreter
4. Explain various Arithmetic Operators in Python with example code. **(Long-Answer Question)**
5. Explain Comparison Operators/Relational Operators in Python. **(Long-Answer Question)**
6. Explain Logical Operators in Python.
7. Explain various Data Types in Python. **(Long-Answer Question)**
8. Explain various conditional statements in Python. **(Long-Answer Question)**
9. Explain various loops in Python. **(Long-Answer Question)**
10. Explain break and continue in Python.

Unit-II

1. What is a Function in Python with an example program. **(Long-Answer Question)**
2. What is a String? Explain various String Functions with examples. **(Long-Answer Question)**
3. Write about Command Line Arguments in Python.
4. Write about Formatting Strings with a program **(Long-Answer Question)**
5. Explain String Slicing and Joining in Python.
6. What is void Function?
7. What is return statement?
8. What is a Module in Python? Explain commonly used Modules. **(Long-Answer Question)**

Unit-III

1. Explain List and its methods. **(Long-Answer Question)**
2. Explain Tuple and its methods. **(Long-Answer Question)**
3. Explain Dictionary with an example.
4. What is an Exception? List out any five exceptions and write a program for Divisible by Zero. **(Long-Answer Question)**
5. Write programs to read and write text files **(Long-Answer Question)**
6. Write programs to count the no. of words in a string/text.
7. Write programs to count the no. of occurrences of character in a string/text
8. Write about module and package in Python.

Unit-IV

1. Define Object Oriented Programming (OOP) and explain its concepts. **(Long-Answer Question)**
2. Write a program to create objects of a class.
3. Write about constructor and instance in Python. Write a program using Constructor **(Long-Answer Question)**
4. Write a Program to implement the inheritance.
5. Write a Program to implement the polymorphism.
6. Explain about Functional Programming **(Long-Answer Question)**
7. Write about Lamba.
8. Write about Generators and Iterators in Python.
9. Write about List Comprehension.
10. Write about Class Attributes versus Data Attributes