

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2023 Semester End Main Examinations

Programme: B.E.

Branch: Institutional Elective

Course Code: 21CS7OEPYP

Course: Python programming

Semester: VII

Duration: 3 hrs.

Max Marks: 100

Date: 22.02.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

- 1 a) What is the difference between an expression and statement in Python? **10**
Explain the conditional statements in Python.
- b) Explain two basic modes of Python. **4**
- c) Write a program to find sum of N odd numbers using function **6**

UNIT - II

- 2 a) Dictionary is the mutable List. Justify the statement with an example. **4**
- b) Write the code to create a dictionary with name of students and to sort the dictionary items. **6**
- c) Write a program that takes a string with multiple words, and then capitalizes first letter of each word and forms a new string out of it. **10**

OR

- 3 a) List and explain any four built-in string manipulation functions supported by Python. **6**
- b) Create list of 5 birds. Using list slicing print only last two birds from the list. **4**
- c) Given str = "Welcome to BMS and CSE" . Write the code using Python string operation to count the characters, words which appears in the given string. **10**

UNIT - III

- 4 a) Demonstrate class creation in Python with an example. **6**
- b) Explain `_init_` and `_str_` methods with example. **4**
- c) Create a Employee class and initialize attributes with name, designation, salary. Use functions to initialize and display the values. **10**

OR

- 5 a) Define exception handling. Explain the user defined exceptions with an example. **10**
- b) List the advantages of operator Overloading. Write a Python program to illustrate to overload binary '+' operator. **10**

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

UNIT - IV

- 6 a) What is character matching in regular expression? Write a program to extract words which starts with 'm' in the given text ('A message from michael to meet miland at mexico this morning ') using regular expressions and display the extracted output. **10**
- b) Write the syntax to open() and read() file. **4**
- c) Write a program to read through a file and print the contents of the file (line by line) all in upper case using try and except. **6**

UNIT - V

- 7 a) What is a database? Write a Python code to create a database file and a table named student with columns(regno, name, branch. Perform all the operations (insert, delete, select) with the records. **10**
- b) Explain the concept of page ranking in Visualizing networks and interconnections. **10**

B.M.S.C.E. - ODD SEM 2022-23