

CBCS SCHEME

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18CS55

Fifth Semester B.E. Degree Examination, June/July 2023 Application Development using Python

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Demonstrate with example print(), input() and string replication. (06 Marks)
- b. List the salient features of python programming language. (06 Marks)
- c. Explain local and global scope in python programs. Illustrate different scenarios, with an example. (08 Marks)

OR

- 2 a. What are Comparison and Boolean operators? List all the comparison and Boolean operators in python and explain the use of these operators with suitable examples. (06 Marks)
- b. Define a python function with suitable parameters to generate prime number between two integer values m and n (note $n > 0$, $m > 0$ and $m < n$). Suitable error messages should be displayed if the conditions for input values are not followed. (06 Marks)
- c. What is Exception handling? How exceptions are handled in python? Write a python code to solve divide-by-zero error situation. (08 Marks)

Module-2

- 3 a. What is Dictionary in Python? How is it different from list data type? Explain how a for-loop can be used to traverse the keys of the dictionary with an example. (06 Marks)
- b. Write a python program that accepts a sentence and find the number of words, digits, uppercase letters and lowercase letters. (06 Marks)
- c. Illustrate the procedure to add Bullets to Wiki Markup with code snippets in python. (08 Marks)

OR

- 4 a. Write python program to create a user defined function to find maximum and minimum letter in string. Also find the length of the string without using inbuilt function. (06 Marks)
- b. With example code, explain join() and split() string methods. (06 Marks)
- c. Discuss the following dictionary methods with examples:
(i) get() (ii) items() (iii) keys() (iv) values() (08 Marks)

Module-3

- 5 a. Describe the following with suitable code snippet:
(i) Greedy and non-greedy pattern matching (08 Marks)
(ii) findall() method of Regex object. (06 Marks)
- b. With code snippet, explain saving variables using the shelve module and PPrint Pformat() function. (06 Marks)
- c. Explain the following file operations in Python with suitable examples:
(i) Copying files and folders
(ii) Moving files and folders
(iii) Permanently deleting files and folders (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 6 a. What is meant by compressing files? Explain reading, extracting and creating ZIP files with code snippet. (08 Marks)
- b. List out the different character classes and its representation also regular expression symbol and its meaning. (06 Marks)
- c. Explain functions of Shutil Module with examples. (06 Marks)

Module-4

- 7 a. What is class? How do we define class? How to instantiate the class and members are accessed? (08 Marks)
- b. Demonstrate pure functions and modifiers with examples. (06 Marks)
- c. Explain `__init__` and `__str__` methods with an example. (06 Marks)

OR

- 8 a. Explain operator overloading with example. (08 Marks)
- b. Illustrate the concept of inheritance with example. (06 Marks)
- c. Define polymorphism. Demonstrate polymorphism with function to find histogram to count the number of times each letter appears in a word and in sentence. (06 Marks)

Module-5

- 9 a. Explain in details how to parse HTML with the Beautiful Soup. (08 Marks)
- b. Describe the `getText()` function used for getting full text from a .docx file with example code. (06 Marks)
- c. Write a python program to access cell in a worksheet. (06 Marks)

OR

- 10 a. Demonstrate JSON module with python program. (08 Marks)
- b. How do we extract, decrypt, copy and encrypt PDF files in Python? (06 Marks)
- c. Explain Selenium's web drive methods for finding elements. (06 Marks)
