

# CBCS SCHEME



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15CS664

Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Python Application Programming

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Explain the salient features of python. (05 Marks)
- b. Write a python program to calculate the area of square, rectangle and circle. Print the results. Take input from user. (05 Marks)
- c. What are user defined functions? How can we pass parameters in user defined functions? Explain with suitable example. (06 Marks)

OR

- 2 a. Explain the concept of conditional execution alternate execution and chained conditions with suitable examples. (06 Marks)
- b. Write a python program to create a user defined function to find maximum and minimum letter in string. Also find the length the string without using inbuilt function. (05 Marks)
- c. Explain the concept of type conversion functions and math functions in python with examples. (05 Marks)

### Module-2

- 3 a. Explain the working of while loop in python with suitable example. (05 Marks)
- b. Write a python program to demonstrate counting, summing and average of elements using loops. (05 Marks)
- c. What is a string? Write a python program to demonstrate traversal through a string with a loop. Also explain the concept of string slicing. (06 Marks)

OR

- 4 a. With syntax and example code, explain the working of definite loop in python. (05 Marks)
- b. Write a python program to concatenate and compare two strings. Read the strings from user. (05 Marks)
- c. Explain fileopen, fileclose, fileread and filewrite concepts in python with example. (06 Marks)

### Module-3

- 5 a. What is a list? Explain the concept of list slicing and list traversing with example. (05 Marks)
- b. Explain the concept of comparing tuples. Describe the working of sort function with python code. (06 Marks)
- c. Write a python program to search for lines that start with 'F' followed by 2 characters, followed by 'm:'. (05 Marks)

OR

- 6 a. What is dictionary? How is it different from list? Write a python program to count occurrence of characters in a string and print the count. (06 Marks)
- b. With an example program, illustrate how to pass function arguments to list. (05 Marks)
- c. Write a python program to search lines that start with 'X' followed by any non whitespace characters, followed by ':' ending with number. Display the sum of all these number. (05 Marks)

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**Module-4**

- 7 a. Define class and object? What are programmer defined types? Explain with example. (05 Marks)
- b. Illustrate the concept of pure function with python code. (05 Marks)
- c. What is the difference between method and function? Explain the working of init method with suitable code. (06 Marks)

**OR**

- 8 a. Define attribute? With the help of python code, explain how functions return instance values. (06 Marks)
- b. Explain the concept of modifier with python code. (05 Marks)
- c. What is type based dispatch? Illustrate with python example. (05 Marks)

**Module-5**

- 9 a. Define socket? Write a python program that makes a connection to a webserver and follows the rules of HTTP protocol to request a plain text document and display what server sends back. (06 Marks)
- b. What is XML? How is it used in python? Explain parsing of XML with example. (05 Marks)
- c. Define cursor? Explain connect, execute and close command of databases with suitable example. (05 Marks)

**OR**

- 10 a. Write a python code to read the file from web using urelib and retrieve the data of the file. Also compute the frequency of each word in the file. (06 Marks)
- b. What is JSON? Illustrate the concept of parsing JSON python code. (05 Marks)
- c. Explain the concept of using JOIN to retrieve data in python. (05 Marks)

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