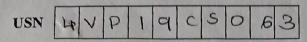
CBCS SCHEME



18CS55

Fifth Semester B.E. Degree Examination, Feb./Mar. 2022 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

- a. Write a Python program to calculate the area and circumference of a circle Input the value of radius and print the results. (06 Marks)
 - b. Explain with example code snippets, different syntax of range() function in Python.

(06 Marks)

c. Discuss local and global scope of variables in Python. Illustrate different scenarios, with an example.

(08 Marks)

OR.

- 2 a. Demonstrate the use of break and continue keywords using a code snippet. (06 Marks)
 - b. List and define the use of comparison operators in Python. Write the output for the following expression in Python:
 - i) 2 * *3 ii) 20% 6 iii) 20% (06 Marks)
 - c. What is user defined function? Write a function to check if a given number is a prime or not.

 (08 Marks)

Module-2

- a. What is a List? Explain the methods that are used to delete items from the list. (08 Marks)
 - o. Write a program to take a sentence as input and display the longest word in the given sentence. (06 Marks)
 - c. How is the dictionary different from list? Assume a dictionary containing city and population as key and value respectively. Write a program to traverse the dictionary and display most populous city.

 (06 Marks)

OR

- 4 a. Explain the following string methods with example:
 - i) join() ii) islower() (iii) strip() iv) center(). (08 Marks)
 - b. Write a program to create a list of number and display the count of even and odd numbers in the list.

 (06 Marks)
 - c. If $\hat{S} = \text{`Hello World'}$, explain and write the output of the following statements:
 - i) S[1:5] ii) S[:5] iii) S[3: -1] iv) S[:]

(06 Marks)

Module-3

- 5 a. What is a regular expression? Explain the process of finding patterns of text with regular expressions and associated methods in Python with an example. (08 Marks)
 - b. Explain the following patterns matching capabilities in python with suitable program snippets:
 - i) Grouping with parentheses
 - ii) Matching multiple groups
 - iii) Matching one or more. (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)

6	a.	Explain with a suitable Python program how findall() is different from search() method.
		State the purpose of any four short hand character classes with examples. (08 Marks)
	b.	What is the difference between OS and OS path modules? Discuss the following four

methods of OS module:

i) chdir() iv) getcwd() ii) walk() iii) listdir() (06 Marks)

c. With code snippets, explain reading, extracting and creating ZIP files in Python. (06 Marks)

Module-4

a. What is class? How do we define class? How to instantiate the class and members are accessed?

b. Write a Python program to add and multiply two complex number objects using operator overloading concepts. (06 Marks)

Discuss type-based dispatch in a Python.

(06 Marks)

Explain __init__ and Explain __init__ and __str__ methods, with an example. What is pure function? Illustrate the same with an example. (08 Marks) (06 Marks)

c. Explain concept of polymorphism with suitable example.

(06 Marks)

Module-5

What is Web Scraping? Explain the process of downloading the file from web and saving downloaded files. (08 Marks)

b. Explain the process of reading cells from EXCEL sheets.

(06 Marks)

c. With a code snippet, discuss how to change the text style of .doc file using paragraph and run objects. (06 Marks)

a. How do we extract, decrypt, copy and encrypt PDF files in Python. (08 Marks)

Discuss the process of creating a beautiful soup object and finding an element from HTML.

(06 Marks)

With an example, illustrate the use of JASON module in Python.

HO ATP ATP

(06 Marks)