

# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18CS55

## Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024 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. What is variable in program? Explain rules for declaring variable name. Explain with example. (05 Marks)
- b. Write types of operators in Python. Explain types of operators with examples. (07 Marks)
- c. Draw flowchart for if-else-ladder in python. Explain execution of if-else-statement with example. (08 Marks)

OR

- 2 a. Write syntax for defining function in Python. Explain function definition and function call in Python with the help of example. (05 Marks)
- b. What is scope of variable? Explain types of scopes of variable with examples. Explain use of 'global' keyword in Python. (07 Marks)
- c. Draw flowchart for while control statement in Python. Explain execution of while control statement with example. (08 Marks)

### Module-2

- 3 a. Define list data type of Python. With example explain how positive and negative index can be used to access elements of list. (05 Marks)
- b. What is tuple data type in Python? With example explain difference between tuple and list data types. (07 Marks)
- c. Explain list data types index( ), append( ), insert( ) and remove( ) methods with examples. (08 Marks)

OR

- 4 a. How references are used in function call in Python. Explain copy module's copy( ) and deepcopy( ) functions with examples. (05 Marks)
- b. Define dictionary data type in Python. With example explain keys( ), values( ), items( ) methods of dictionary data type. (07 Marks)
- c. Explain following string methods with example: upper( ), lower( ), isupper( ), islower( ), startswith( ), endswith( ), join( ) and split( ). (08 Marks)

### Module-3

- 5 a. Explain following file related functions with examples open( ), close( ), read( ), readline( ), readlines( ). (05 Marks)
- b. What is Shutil module? Explain how it is used for copying, moving and removing files and folders in Python. (07 Marks)
- c. With example explain different file opening modes in Python. (08 Marks)

OR

- 6 a. With example explain walking a directory tree in Python. (05 Marks)  
b. Define a regular expression to extract phone number. Using this regular expression write a Python program to extract phone number. (07 Marks)  
c. Write a Python program to create zip file and to extract zip file. Explain these programs with appropriate comment lines in the code. (08 Marks)

Module-4

- 7 a. What is inheritance? Write and explain Python code for inheritance. (05 Marks)  
b. Explain object oriented features of Python. Explain --init( )-- and --str-- methods in Python class object. (07 Marks)  
c. Write and explain code for pure function and modifiers. (08 Marks)

OR

- 8 a. Explain type-based dispatch concept in Python with help of example. (05 Marks)  
b. Define a time class. Write a Python program to set values to attributes of class and to display values of attributes of class. (07 Marks)  
c. Explain following terms with examples: class, object, attribute, operator overloading. (08 Marks)

Module-5

- 9 a. Write a Python program to download web content and save in file. (05 Marks)  
b. Write a Python program to create and save excel file. (07 Marks)  
c. With example explain reader and writer objects of 'csv' module. (08 Marks)

OR

- 10 a. Explain how a 'run' object is used in paragraph object of the word file to read text. (05 Marks)  
b. Explain pypdf2 module in Python. Write a Python code to encrypt pdf file and decrypt a pdf file. (07 Marks)  
c. List and explain 'Run' object text attributes. Explain each attribute with example. (08 Marks)

\*\*\*\*\*