CBCS SCHEME

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15CS664

Sixth Semester B.E. Degree Examination, Jan./Feb. 2021
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 computer hardware architecture with a neat sketch. **(06 Marks)**

b. Write a note on general types of errors. **(06 Marks)**

c. Write a program that uses input to prompt a user for their name and then welcomes them. **(04 Marks)**

OR

2 a. Write a program which prompts the user for a Celsius temperature, convert the temperature to Fahrenheit and print the converted temperature. **(06 Marks)**

b. Explain nested conditional statement with an example. **(04 Marks)**

c. Write a program with a function computer grade that takes a score as its parameter and returns a grade as a string. **(06 Marks)**

Module-2

3 a. Analyze the use of break and continue statement with an example. **(06 Marks)**

b. Explain format operators in python with suitable examples. **(03 Marks)**

c. Define a file data structure. Illustrate reading and writing operation on files with examples. **(07 Marks)**

OR

4 a. Write a program to read numbers repeatedly until the user enters 'done'. Once 'done' is entered print out total, count and average of the numbers. **(06 Marks)**

b. Write a note on string methods. **(07 Marks)**

c. Write a program to read through a file and print the contents of the file (line by line) all in upper case. **(03 Marks)**

Module-3

5 a. Explain list operations and list methods with examples. **(05 Marks)**

b. Write a program to count how many times each letter appears in a word. **(07 Marks)**

c. Explain tuple assignment with examples. **(04 Marks)**

OR

6 a. Write a program to open a file and read it line by line. For each line, split the line into list of words using split function. For each word check to see if the word is already in a list. If the word is not in the list, add it to the list. **(06 Marks)**

b. Explain advanced text parsing using dictionary. **(07 Marks)**

c. Why search and find all functions of regular expressions used? Explain with suitable examples. **(03 Marks)**

Module-4

7 a. Define class. Explain classes and objects of python in detail with suitable examples. **(10 Marks)**

b. What is a pure function? Explain with an example. **(06 Marks)**

OR

8 a. Write a program with a function print_time that takes a time object and prints it in the form hour:minute:second. Write another function is_after that takes two time objects t_1 and t_2 and resume True if t_1 follows t_2 chronologically and False otherwise. **(08 Marks)**

b. Write a note on operator overloading with an example. **(08 Marks)**

Module-5

9 a. How to retrieve web pages using urllib? Explain how to compute frequency of each word in the file retrieved. **(08 Marks)**

b. What is an API? Explain with a neat sketch. **(08 Marks)**

OR

10 a. Write a program to read binary files. **(08 Marks)**

b. Explain keys in a database model. **(08 Marks)**

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