15CS664

USN ☐☐☐☐☐☐☐☐☐☐

Sixth Semester B.E. Degree Examination, June/July 2018
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. List the rules to declare a variable in Phython. Demonstrate atleast three different types of variable uses with an example program.   **(05 Marks)**
   b. Explain the rules of precedence used by Phython to evaluate an expression.   **(05 Marks)**
   c. Write a Phython program to find the best of two test average marks out of three test's marks accepted from the user.   **(06 Marks)**

OR

2 a. How Phython handles the exceptions? Explain with an example program.   **(05 Marks)**
   b. Write a single user defined function named 'Solve' that returns the Remainder and Quotient on division of two numbers accepted from the user. Print the Remainder and Quotient separately on the console.   **(06 Marks)**
   c. Predict the output and justify your answer : (i) $-11\%9$ (ii) $7.7//7$ (iii) $(200-70)*10/5$
   (iv) not "False"   (v) $5*1**2$ **(05 Marks)**

Module-2

3 a. Demonstrate the use of break and continue keywords in looping structures using a snippet code.   **(06 Marks)**
   b. Explain string slicing in Python. Show with examples.   **(04 Marks)**
   c. Write a Phytho program to accept a sentence from the user and display the longest word of that sentence along with its length.   **(06 Marks)**

OR

4 a. List and explain any four built in string manipulation functions supported by Python.
                                                                                             (06 Marks)
   b. Write the Python code to display the last six characters of the string "Make hay while the sun shines" to the console.   **(03 Marks)**
   c. Write a Pytho program to accept a file name from the user:
       (i)   Display the first N-lines of the file.
       (ii) Find the frequency of occurrence of the word accepted from the user in the file.
                                                                                             (07 Marks)

Module-3

5 a. What are lists? Lists are mutable. Justify the statement with examples.   **(05 Marks)**
   b. How tuples are created in Python? Explain different ways of accessing and creating them.
                                                                                             (05 Marks)
   c. Write a Pytho program to read all the lines in a file accepted from the user and print all email addresses contained in it. Assume the email addresses contain only non-white space characters.   **(06 Marks)**

OR

6 a. Implement a Python program using Lists to store and display the average of N integers accepted from the user. **(05 Marks)**
   b. Explain dictionaries. Demonstrate with a Python program. **(05 Marks)**
   c. Write a Pytho program to search for lines that start with the word 'From' and a character followed by a two digit number between 00 and 99 followed by ':' Print the number if it is greater than zero. Assume any input file. **(06 Marks)**

Module-4

7 a. Create a student class and initialize it with name and roll number. Design methods to:
       (i)   Display_to display all information of the student.
       (ii)   setAge_to assign age to student.
       (iii) setMarks_to assign marks to the student. **(07 Marks)**
   b. Using datetime module write a program that gets the current date and prints the day of the week. **(04 Marks)**
   c. What are polymorphic functions? Explain with a snippet code. **(05 Marks)**

OR

8 a. What does the keyword self in Python mean? Explain with an example. **(05 Marks)**
   b. Show using a Python code how_init_method is invoked when an object is initiated. Explain its working. **(06 Marks)**
   c. Explain _ str_ method with a Pytho program. **(05 Marks)**

Module-5

9 a. What is socket? Explain how socket connection can be established to the internet using Python code over the TCP/IP connection and the http protocol to get the web document. **(08 Marks)**
   b. Explain the significance of XML over the web development. Illustrate with an example. **(08 Marks)**

OR

10 a. Write a note on Google Geocoding web service. Using Python supported libraries, demonstrate with a Snippet code. **(08 Marks)**
    b. What is embedded SQL? Explain the importance of SQLite database. Write a Python code to establish a database connection to 'EmpDb' and display the total gross salary paid to the employees working in the 'Quality Control' department.
        Assume the employee table has been already created and exist in the 'EmpDb'. The fields of Employee table are : (EmpID, DeptName, GrossSalary) **(08 Marks)**

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