STATE BOARD OF TECHNICAL EDUCATION AND TRAINING
TELANGANA
DIPLOMA EXAMINATION (C-21)
AUG-24
SEMESTER V , MID-I EXAM
CCB/CPS/CS

CS-503
Python Programming

PCODE 15040

Exam Date: 13-08-2024
Duration: 1 Hour [10:00 AM To 11:00 AM]

Session: FN
[Total Marks: 20]

PART-A

Instructions: 1. Answer the following questions. 4 X 1 = 4
2. Each question carries **ONE** mark.

1. List any two versions of Python.
2. Define IOT
3. What is the affect of multiplying a list by an integer?
4. List any two decision making statements available in python.

PART-B

Instructions: 1. Answer the following questions. 2 X 3 = 6
2. Each question carries **THREE** marks.

5(a). Write any three demerits of IOT?

---- OR ----

5(b). Write a short notes on GPIO header on Raspberry Pi.

6(a). Compare recursive and iterative way of problem solving.

---- OR ----

6(b). Explain variable length arguments and default arguments to methods

PART-C

Instructions: 1. Answer the following questions. 2 X 5 = 10
2. Each question carries **FIVE** marks.

7(a). Explain the procedure to install operating system into Raspberry Pi.

---- OR ----

7(b). Explain different ways to execute Python script.

8(a). Explain recursion and write a python program to find factorial of a given natural number 'n' using recursive function.

---- OR ----

8(b). Explain the indentation in python programming with two examples.

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CS-503

Python Programming

PCODE 15040

Exam Date: 27-09-2024 Session: FN
Duration: 1 Hour [09:30 AM To 10:30 AM] [Total Marks: 20]

PART-A

Instructions: 1. Answer the following questions. 4 X 1 = 4
2. Each question carries **ONE** mark.

1. What is fabs() method in Python mathematical function?
2. What is super() function in Python?
3. Define thread synchronization.
4. List any two common run time errors

PART-B

Instructions: 1. Answer the following questions. 2 X 3 = 6
2. Each question carries **THREE** marks.

5(a). Write a python script to demonstrate local and global variables.

---- OR ----

5(b). Explain the following Classes in datetime module with example.

a) date class

b) time class

c) datetime class

6(a). List any 3 pros and cons of Multithreading.

---- OR ----

6(b). Write about raise keyword in python.

PART-C

Instructions: 1. Answer the following questions. 2 X 5 = 10
2. Each question carries **FIVE** marks.

7(a). Write a Python program to demonstrate Multiple Inheritance.

---- OR ----

7(b). Write a Python Class to convert an integer to a roman numeral.

Ex: 1000 into M, 500 into D, 10 into X etc.

8(a). Explain Exception Handling in Python With an example.

---- OR ----

8(b). Explain *activeCount( )* methods with an example python program.

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C21-END-NOV-24
SEMESTER V , SEMESTER END EXAM
CCB/CPS/CS

CS-503

Python Programming

PCODE 15040

Exam Date: 13-11-2024 Session: FN
Duration: 2 Hours [11:30 AM To 01:30 PM] [Total Marks: 40]

PART-A

Instructions: 1. Answer the following questions. 8 X 1 = 8
2. Each question carries **ONE** mark.

1. Define function.
2. What is fabs() method in Python mathematical function?
3. Define a Menu widget?
4. What is the use of activeCount() method in threads?
5. Define Regular expression
6. List two geometry managers in Tkinter
7. Define Bread Board.
8. Define Stored Procedure in SQL.

PART-B

Instructions: 1. Answer the following questions. 4 X 3 = 12
2. Each question carries **THREE** marks.

9(a). Write any six features of Python programming.

---- OR ----

9(b). List three attributes of Entry and Text widgets

10(a). Write short notes on user defined exceptions in python.

---- OR ----

10(b). Write about opening and closing a file.

11(a). Define Button, Checkbutton, and Entry widgets

---- OR ----

11(b). Write the use of three Meta characters used in regular expression.

12(a). Write the steps to connect Raspberry Pi to Wireless network.

---- OR ----

12(b). Write short notes on open, close and write functions to work with files.

PART-C

Instructions: 1. Answer the following questions. 4 X 5 = 20
2. Each question carries **FIVE** marks.

13(a). Explain union, intersection, difference and symmetric difference operations on a set with an example program

---- OR ----

13(b). Write a python program to validate an email address using a regular expression

14(a). Explain about thread synchronization with an example program in python.

---- OR ----

14(b). Write the steps and Python program to create a buzzing sound using Buzzar and Raspberry PI.

15(a). Write a python program to create a following window

---- OR ----

15(b). Explain Button widget with an example program.

16(a). Write a python program to rename and delete a file

---- OR ----

16(b). Write the steps and python program to turn On and Off LED using Raspberry Pi.