A

Answer All Questions

PART A - (10 x 1 = 10 Marks)

1. What is the output of the following code?   CO1-App

   >>> float("123" * int(input('Enter a Number:')))

   Enter a Number: 3

   (a)"123123123"   (b)"369.0"   (c) 123123123.0   (d) 369.0

2. Which line of code produces an error?   CO1-App

   (a) "one" + "2"   (b) '5' + 6   (c) 3 + 4   (d) "7" + 'eight'

3. What will be the output of the following Python function?   CO2-App

   s=len(["hello",2, 4, 6])

   print(s)

   (a) 6   (b) 4   (c) 3   (d) Error

4. Which of the following is not a core data type in Python Programming?   CO1-U

   (a) List   (b) Tuple   (c) Dictionary   (d) Class

5. What is the output of the following program?   CO3-App

   z = lambda x : x * x

   print(z(6))

   (a) 6   (b) 36   (c) 0   (d) Error

6. What is the output of the following program? CO3-App

```
def fun(i,j):
    if(i==0):
        return j
    else:
        return fun(i-1,j+1)
print(fun(4,8))
```

   (a) 10 (b)11 (c) 12 (d) 13

7. Both the functions randint and uniform accept _____ CO4-App
   parameters

   (a) 0 (b) 1 (c) 3 (d) 2

8. What will be the output of the following Python code? CO4-App

   random.randrange(0,91,5)

   (a) 10 (b) 18 (c) 79 (d) 95

9. Which symbol is used for append mode? CO5-U

   (a)ap (b) a (c) w (d) app

10. Is seek ( ) method is used for random access to the file? CO5-U

    (a) True (b) False (c) 0 (d) 1

<div align="center">PART – B (5 x 2= 10Marks)</div>

11. List 6 features of python. CO1-U

12. Write a Python program to generate Fibonacci series. CO2-App

13. A user wants to multiply two numbers so he/she writes a python code using CO3-App
    lambda Functions.

14. Write a python program by considering any date and convert the date to CO4-App
    string?

15. How do you write exception handling code in Python? CO5-U

<div align="center">PART – C (5 x 16= 80Marks)</div>

16. (a) (i) Write short notes on data types in python. CO1-U (8)
        (ii) Describe the features of python. CO1-U (8)

<div align="center">Or</div>

(b) (i) Briefly explain the operators in python with suitable examples. CO1-U (10)

(ii) Write short notes on operator precedence and associativity. CO1-U (6)

17. (a) (i) Write a python program to demonstrate the use of del statement and clear() function on dictionary. CO2-App (8)

(ii) Write a python program that has a dictionary of your friends name(as keys) and their birthdays. Print the items in the dictionary in a sorted order. Prompt the user to enter a name and check if it is present in the dictionary. If the name does not exist, then ask the user to enter DOB and get it updated in the dictionary. CO2-App (8)

Or

(b) (i) Write a Python program that takes a non-empty list of integers and returns a list [pos,neg], where pos is the sum of squares of all the positive numbers in l and neg is the sum of cubes of all the negative numbers in l. CO2-App (8)

(ii) Write a program that creates two sets of even and composite numbers separately in the range 1-20. Demonstrate the use of all(), issupersset(),len(), and sum() functions on the sets. CO2-App (8)

18. (a) (i) Write a Python recursive function which computes the nth Fibonacci number. Fibonacci numbers are defined as fib(0)=1,fib(1)=1, fib(n)=fib(n-1)+fib(n-2) and then find the 8th Fibonacci number. CO2-App (8)

(ii) Write a function to convert seconds into minutes for ex: convert Min (100) should give output as 1 minute 40 seconds. CO2-App (8)

Or

(b) (i) A user wishes to perform certain task using functions absolute () is used to find absolute value of a given number, square () is used to return square value of a given number, cube () is used to find cube of a given number. CO2-App (8)

(ii) Develop a Python program to find maximum of given three numbers using parameter passing. CO2-App (8)

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19. (a) Create a package named Operations and Create two modules   CO2-App (16)
named Arithmetic operations which does Arithmetic operations and
Logical operations which does Logical operations and create a test
files which is used to check the working of the package created.
Write a python to achieve the above task and also write the various
steps involved in creating a package.

Or

(b) Consider a list which has name as Employees which contains name,   CO2-App (16)
age and their salary as below:
Name= 'Alan Turing' , Age =25, Salary = 10000
Name= 'Sharon Lin' , Age =30, Salary = 8000
Name= 'John Hopkins' , Age =18, Salary = 1000
Name= 'Mikhail Tal' , Age =40, Salary = 15000
Perform the following operations
a) Sort the Employee List by Names in Ascending order
b) Sort the Employee List by Age in Ascending order
c) Sort the Employee List by Salary in Descending order

20. (a) Write the use and syntax for the following methods with some   CO1-U (16)
example code for each parts:
a) open()
b) read()
c) seek()
d) dump()

Or

(b) Differentiate between the following methods.   CO1-U (16)
a) text file and binary file
b) readline() and readlines()
c) write() and writelines()
d) tell() and seek ()

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