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**PRESIDENCY UNIVERSITY
BENGALURU
SCHOOL OF INFORMATION SCIENCE**

MID TERM EXAMINATION

SET – A

Winter Semester: 2021-22

Course Code: BCA 1005

Course Name: Programming in Python

Program & Sem: BCA & II

Date: 10/MAY/2022

Time: 01:30 PM – 03:00 PM

Max Marks: 50

Weightage: 25%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Every input in the program must be taken from user.
- (iii) List can be read from user using eval() or loops.

Part A

Answer all the Questions. Each question carries TWO marks.

(10Qx 2M=20M)

1. What is the output of following code:

```
print("He said, "What's there?")
```

[CO1][Application]

- A. He said B. SyntaxError: invalid syntax C. What's there?
there?

D. He said, What's

2. append() function in list is use to:

- A. Add 2 items in the list B. Add a single item in the list
C. Add 3 item in the list D. Add multiple items in the list

[CO1][Application]

3. What is the output of the following code:

```
n = ["Happy", [2,0,1,5]]  
print(n[0][5])
```

[CO1][Application]

- A. 5 B. Error C. y D. [2,0,1,5]

4. Suppose list1 is [1, 3, 2], What is list1 * 2 ?

[CO1][Application]

- A. [2, 6, 4] B. [1, 3, 2, 2] C. [1, 3, 2, 1, 3, 2] D. [1, 3, 2, 2, 3, 1]

5. Which of the following is a valid Python Identifier

[CO1][Application]

- A. person_record B. 12_x C. 123var D. All of these

6. Which of the following is not a Python Keyword.

[CO1][Application]

- A. del B. return C. var D. if

7. Which among the following is identity operator?

[CO1][Application]

- A. :? B. in C. is D. ==

8. Which built-in function is used to get the length of a list? [CO1][Application]
9. List is an immutable data structure. True/False? [CO1][Application]
10. Which built-in function is used to get the count of an element in a list? [CO1][Application]

Part B

Answer all the Questions. Each question carries 15 marks. (2Qx15M=30M)

11. Priya works in Intel and stays in Bengaluru. Due to her busy schedule, She has admitted her daughter in a boarding school in Dehradun. She wants to meet her daughter on every third Saturday of the month. Rest of the days, she has her normal schedule. Help Priya to create a quick look-up page of her schedule. (Hint: Use Conditional Statements/Loops)

[CO1][Application]----15

Sample input: Enter a day : Saturday

Enter which day it is of the month: 3

Sample output: Have to meet daughter

Sample input: Enter a day : Saturday

Enter which day it is of the month: 1

Sample output: Oh ! Its just a usual day for me

Sample input: Enter a day : Thursday

Sample output: Oh ! Its just a usual day for me

12. a) Read a list l=['law', 'btech'].

Update and print the list l as l=['law', 'btech', 'law', 'btech', 'law', 'btech']-----5

b) Read two lists of integers. Check whether there are any common elements in both the lists. Print the common elements along with the index where the common element occurs for the first time in their respective lists. [CO1][Application]----10

Sample input: n=[2,3,5,6]

u=[5,1, 8, 7,5]

Sample output: Common element is 5

Index of 5 in list n is 2

Index of 5 in list u is 0

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**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF INFORMATION SCIENCE

END TERM EXAMINATION

Winter Semester: 2021-22

Course Code: BCA 1005

Course Name: Programming in Python

Program & Sem: BCA & II Sem

Date: 28th June 2022

Time: 01:00 PM to 04:00 PM

Max Marks: 100

Weightage: 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Every input in the program must be taken from user.
- (iii) List/Tuple/Dictionary can be read from user using eval() or loops.

Part A

Answer all the Questions. Each question carries TWO marks.

(10Qx 2M=20M)

1. Identify the correct way to get marks. (C.O.No 2)[Knowledge]

```
student = { "name": "Emma", "class": 9, "marks": 75}
```

a) m = student.get(2) b) m = student.get('marks') c) m = student['marks'] d) Both B & C
2. Identify the output for the following code: (C.O.No 2)[Knowledge]

```
[x ** 2 for x in range(5)]
```

a) 1,4,9,16,25 b) 0,1,4,9,25 c) 0,1,4,9,16 d) 1,4,9,16,36
3. Identify the function used to plot a horizontal bar graph? (C.O.No 4)[Knowledge]

a) bar() b) barh() c) pie() d) None of these
4. Identify the missing line if output is 2,4,6,8 has to be generated: (C.O.No 4)[Knowledge]

```
for i in range(-----):  
    print(i)
```

a) (2,10,2) b) (0,10,2) c) (2,8,2) d) None of these
5. Identify the exception raised when an import (or from...import) statement fails or when a module or member of module cannot be imported? (C.O.No 3)[Knowledge]
6. Identify the function which reads the content of a text file as a list of lines? (C.O.No 3)[Knowledge]
7. Identify the output of my_list[:6] for the given list my_list= ['p','y','t','h','o','n','p','r','o','g','r','a','m'] ? (C.O.No 2)[Knowledge]

a) ['o', 'g', 'r'] b) ['p','y','t','h','o','n'] c) ['p', 'r', 'o', 'g', 'r'] d) ['a','m','i','z']

8. Identify the usage of fillna() function? (C.O.No 4)[Knowledge]
a) Fill string values b) Fill missing values c) Dropping the missing values d)Checking the missing values

9. Identify the output of the following code: (C.O.No 3)[Knowledge]

```
def cal (a, b):
```

```
    output = a * b
```

```
    print(output)
```

```
cal(4, 4)
```

a) Error in program b) 16 c) 12 d) None

10. To open a file c:\scores.txt for writing, we use _____ (C.O.No 3)[Knowledge]

- a) infile = open("c:\\scores.txt", "r") b) infile = open(file = "c:\scores.txt", "r")
c) infile = open("c:\\scores.txt", "w") d) infile = open("c:\scores.txt", "a")

Part B

Answer all the Questions. Each question carries TEN marks. (4Qx10M=40M)

11. a) Explain any two types of selective control structures with syntax and examples. (4M)
b) Explain Membership and Identity Operators with example.(6M) (C.O.No 1)[Knowledge]
12. a) Identify any four differences between List, Tuple and Dictionary. (4M)
(C.O.No 2)[Knowledge]
b) Explain Addition, Deletion and Slicing operation performed on list. (6M)
13. a) Implement a python code to read text file contents using for loop.(4M)
(C.O.No 3)[Application]
b) Define error and three major types of errors in python with examples. (6M)
(C.O.No 3)[Knowledge]
14. a) Describe any two methods or builtin functions to do operations with dataframe with example.(4M)
(C.O.No 4)[Knowledge]
b) Explain slicing operator and range() with examples.(6M)

Part C

Answer all the Questions. Each question carries TEN marks. (4Qx10M=40M)

15. Hari wants to show his programming skills to his classmates by developing an application which easily calculates the area and perimeter of atleast three mathematical shapes based on the user request **using functions**: (C.O.No.3)[Application]

- a) User option to be captured and create appropriate functions.
b) Calculate area and perimeter for user's opted shape by calling appropriate function.

16. Implement python code to decide the eligibility for loan based on the salary by reading it from the user. (C.O.No 1)[Application]

Salary of an Employee/Year

5-10 Lakhs
10-15 Lakhs
15-20 Lakhs

Eligibility for Loan

Personal loan
Car Loan
Home Loan

Sample Input and Output:

Enter the salary of an employee: 1200000
Employee is eligible to take Car loan

17) It was time for a competition in a community and they all had planned for a guessing game. The game was to guess the number among the numbered gift cards and check if the guessed number's unicode value is divisible by 5. Who guessed it right was rewarded.

(C.O.No 2)[Application]

- Create a tuple which contains numbers present on the gift card.
- Input the guess number from the player and look for it in the tuple.

Sample Output Pattern:

Case 1:

Sample Input:

tup1= (100,45,76,98)

Enter the number to be searched: 98

Sample Output: Your card was found and you'll be rewarded

Case 2:

Sample Input:

tup1= (100,45,76,98)

Enter the number to be searched: 200

Sample Output: Your card was not found. Better luck next time!

18) Following are the marks of students given in a python project to a team of 6 students namely Nabeela, Faizan, Sai, Shabaz, Likita, Malik out of 100 based on their contribution to the project:

50, 20, 30, 80, 60, 10

Store the marks and names in a suitable data structure and plot a Pie chart with a shadow, some explode for slices and startangle of 60 degree.

(C.O.No 4)[Application]



