MASTER OF COMPUTER APPLICATION FOURTH SEMESTER PYTHON PROGRAMMING MCA - 402.6

(Use Separate Answer Scripts for Objective & Descriptive)

Duration: 3 hrs.

Full Marks: 70

[PART-A: Objective]

Time: 20 min.

Marks:20

Choose the correct answer from the following:

1X20 = 20

Suppose a list with name 'a' contains 5 elements . You can get the second element from the list using:
 a. a[-2]
 b. a[1]
 c. a[-1]
 d. a[2]

2. Is python case sensitive when dealing with identifiers?

a. Yes

b. No

c. May be

d. None of these

3. All keywords in python are in

a. UPPER CASE

b. Lower case

c. Capitalized

d. None of the mentioned

4. Which one of the following has the highest precedence in an expression?

a. Addition

b. Parenthesis

c. Multiplication

d. Exponential

5. Python allows string slicing. What is the output of below code: s='cppbuzzchicago' print(s[3:5])

a. buzz

b. bu

c. pbuzz

d. None of these

6. Which of the following is not a declaration of the dictionary.?

a. {1:'A',2:'B'}

b. {1,"A",2"B"}

c. dict([[1,"A"],[2,"B"]])

d. {}

7. What will be the output of the following python code?

i=0

while true:

if i%2==0:

break

print i

i+=2

a. 1 c. 1357911 b.12589

d. None of these

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8. What is the output of this code?
     a,b=1,0
     a=a^b
     b=a^b
     a=a^b
     print(a)
                                                  b. 1
     a. 0
     c. 2
                                                  d. Code will rise a runtime error
9. How do you denote the end of a block in python?
     a. By indenting the next line less than the
                                                  b. With the semicolon;
       current
                                                  d. With a backslash /
     c. With the end keyword
10. Which of the following is used to initialize multiple variables with a
    common value?
                                                  b.x=y=z=33
     a. x=y:y=33
     c. x=z;y=z;x=33
                                                  d. x&y&z=33
11. What is the output of the following code?
     deffunc(x, ans):
      if(x==0):
        return 0
        return func(x-1, x+ans)
    print(func(2,0))
     a. 0
                                                  b. -1
     c. -2
                                                  d. -3
12. Which can be an Identifier among them in Python?
     a. -abc
                                                  b. -$12a
     c. _xy1
                                                  d. -@python
13. What will be the output of the following code snippet?
     example=["sunday","monday","tuesday","wednessday"];
     print(example[-3: -1])
a. ['monday','tuesday']
c. ['tuesday','wednessday']
                                                  b. ['sunday', 'monday']
                                                  d. ['monday', 'tuesday', 'wednessday']
14. What is the output of the following python programs?
     y = 18
     z=lambda x:x*y
     print(z(3))
     a. 54
                                                  b. 48
     c. 64
                                                  d. None of these
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name="Computer_Science"
              defmyfunction(parameter):
                       value="First"
                       value="parameter"
                       print(value)
              myfunction("Second")
                                                 b. First
     a. Computer_Science
     c. Second
                                                 d. parameter
16. What will be the datatype of the var in the below code snippet?
     var = 10
     print(type(var))
     var = "Hello"
     print(type(var))
                                                 b. str and str
     a. int and str
     c. int and int
                                                 d. str and int
17. What will be the output of the following code snippet?
     print(type(5 / 2))
     print(type(5 // 2))
     a. float and float
                                                 b. float and int
                                                 d. int and int
     c. int and float
18. Which of the following types of loops are not supported in Python?
                                                 b. while
     a. for
                                                 d. none of these
     c. do while
19. What will be the output of the following code snippet?
     square = lambda x: x ** 2
     a = []
     for i in range(5):
     a.append(square(i))
     print(a)
     a. [1,4,9,16,25]
                                                 b. [0,1,2,3,4]
                                                d. [1,2,3,4,5]
     c. [0,1, 4,9,16]
20. Which of the following are valid escape sequences in Python?
                                                b. \\
     a. \n
     c. \t
                                                d. All the above
```

15. What value is printed when the following code is executed?

PART-B: Descriptive

Marks: 50 Time: 2 hrs. 40 min. [Answer question no.1 & any four (4) from the rest] 10 1. Describe Arithmetic Operators, Assignment Operators, Comparison Operators, Logical Operators and Bitwise Operators in detail with examples. 5+5=10 2. Explain the Identifiers, Keywords, Statements, Expressions, and Variables in Python programming language with examples. Also Explain the basic data types available in Python with examples. 5+5=10 3. Answer the following questions a. Discuss the relation between tuples and lists, tuples and dictionaries in detail. b. Write down five important characteristics of python programming. 4. Describe the syntax of the following functions and explain with $2 \times 5 = 10$ an example. a. len() c. index() d. tuple() e. abs() b. max() 5+5=10 5. Explain the need for continue and break statement. Also Illustrate the different types of control flow statements available in Python with flowcharts. $2 \times 5 = 10$ Attempt any five a. List different data types in python. b. State how to perform lambda function in python. c. Explain why tuples are called as immutable. d. Mention the use of //, **, % operator in python. e. List feature of python. 10 7. Write Python Program to reverse a number and also find the Sum of digits in the reversed number. Prompt the user for input. a. Write a python program to separate positive and negative 5+5=10 number from a list. [Hint: given x=[23,4,-6,23,-9,21,3,-45,-8]Expected output Result: Positive:[23,4,23,21,3] Negative:[-6,-45,-9,-8] b. Write Python Program to Calculate Area and Perimeter of

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different Shapes using function.