E–830

M. Sc. (IT) (Third Semester) EXAMINATION, Dec.-Jan., 2020-21

(New Course)

Paper Second

PYTHON PROGRAMMING LANGUAGE

Time : Three Hours]　　　　　　　[*Maximum Marks : 100*

[*Minimum Pass marks : 40*

Note : Attempt all Sections as directed.

Section—A　　　　　1 each

(Objective/Multiple Choice Questions)

Note : Attempt all questions.

Choose the correct /most appropriate answer and write it in your answer book :

1. In which language is Python written ?

    (a) English

    (b) PHP

    (c) C

    (d) All of the above

2. What do we use to define a block of code in Python language ?

    (a)   Key

    (b)   Brackets

    (c)   Indentation

    (d)   None of the above

3. Which of the following is correctly evaluated for this function ?

$$Pow\ (x,\ y,\ z)$$

    (a) $(x^{**}y)/z$

    (b) $(x/y)^{*}z$

    (c) $(x^{**}y)\%z$

    (d) $(x/y)/z$

4. Which of the following statement is correct in this Python code ?

    Class_Name :

    def_init_(javatpoint) :

    javajavatpoint = java

    name 1 = Name ("ABC")

    name 2 = name 1

    (a)   It will throw the error as multiple references to the same object is not possible.

(b) id (name 1) and id (name 2) will have same value.

(c) Both name 1 and name 2 will have reference to two different objects of class name.

(d) All of the above

5. Which of the following declaration is incorrect in Python language ?

(a) XYZP = 5, 000,   000

(b) X Y Z P = 5000, 6000, 7000, 8000

(c) X, Y, Z, P = 5000, 6000, 7000, 8000

(d) X_Y_Z_P = 5, 000,   000

6. Which one of the following syntaxes is the correct syntax to read from a simple text file stored in "d:\java.txt" ?

(a) In file = Open ("d : \\ java.txt", "r")

(b) In file = Open (file "d : \\\ java.txt", "r")

(c) In file = Open ("d : \ java.txt", "r")

(d) In file = Open . file ("d : \\ java.txt", "r")

7. The output to execute string . ascii_letters can also be obtained from :

(a) Character

(b) ascii_lowercase_string.digits

(c) lowercase_string.uppercase

(d) string.ascii_lowercase + string.ascii_uppercase

8. Study the following program :

  i = 1 :

  while true :

  if i % 3 = = 0 :

  break

  print (i)

  Which of the following is correct output of this program ?

  (a) 1 2 3

  (b) 3 2 1

  (c) 1 2

  (d) Invalid syntax

9. What is called when a function is defined inside a class ?

  (a) Module

  (b) Class

  (c) Another function

  (d) Method

10. .... is a simple but incomplete version of a function.

  (a) Stub

  (b) Function

  (c) A function developed using bottom-up approach

  (d) A function developed using top-down approach

11. Find the output of the following program :

    a = {i : i * i for i in sauge (6)}

    print (a)

    (a)   Dictionary comprehension doesn't exist

    (b)   {0 : 0, 1 : 1, 2 : 4, 3 : 9, 4 : 16, 5 : 25, 6 : 36}

    (c)   {0 : 0, 1 : 1, 4 : 4, 9 : 9, 16 : 16, 25 : 25}

    (d)   {0 : 0, 1 : 1, 2 : 4, 3 : 9, 4 : 16, 5 : 25}

12. .... user square brackets for comma separated values in Python. Fill in the blank with a Python collection :

    (a)   Lists

    (b)   Dictionary

    (c)   Tuples

    (d)   None of the above

13. How to display whether the date is AM/PM in Python ?

    (a)   Use the % H format code

    (b)   Use the % P format code

    (c)   Use the % Y format code

    (d)   Use the % I format code

14. What is used in Python functions, if you have no idea about the number of arguments to be passed ?

    (a)   Keyword argument

    (b)   Default argument

    (c)   Required argument

    (d)   Arbitrary argument

15. How to get the total length of tuple in Python ?

    (a) count( ) method

    (b) length( ) method

    (c) len( ) method

    (d) None of the above

16. .... represents key-value pair in Python.

    (a) Tuples

    (b) Lists

    (c) Dictionary

    (d) All of the above

17. Which of the following function convert a string to a set in Python ?

    (a) set(x)

    (b) dict(d)

    (c) frozenset(s)

    (d) chr(x)

18. Which of the following would you relate to a function call made with an argument passed as its parameter ?

    (a) Function invocation

    (b) Pass by value

    (c) Pass by reference

    (d) Pass by name

19. What is the method inside the class in Python language ?

    (a) Object

    (b) Function

    (c) Attribute

    (d) Arguments

20. Which of the following statements is correct for variable names in Python language ?

    (a) All variable names must being with an underscore.

    (b) Unlimited length

    (c) The variable name length is a maximum of 2.

    (d) All of the above

Section—B   2 each

(Very Short Answer Type Questions)

Note : Attempt all questions. Write answer in 2-3 sentences.

1. Explain the key features of Python.

2. Define constructors in Python.

3. How many basic types of functions are available in Python ?

4. What is dictionary in Python ?

5. What is polymorphism in Python ?

6. What are local and global variables ?

7. Write history of Python.

8. Explain math functions in Python.

9. What is type conversion in Python ?

10. What is pickling and unpickling ?

Section—C   3 each

(Short Answer Type Questions)

Note : Attempt all questions.

1. What is call-by-value and call-by-reference ?

2. What is inheritance in Python programming ?

3. What is a tuple in Python ?

4. How is python thread safe ?

5. What are attributes and methods in a python class ?

6. What is difference between pass and continue ?

7. What is the purpose of end in Python ?

8. Explain break statement with example.

9. Explain string operations.

10. Explain built-in functions of tuples.

Section—D   6 each

(Long Answer Type Questions)

Note : Attempt all questions. Write answer in < 150 words.

1. What is the difference between lists and tuples ?

2. Explain all OOPs concepts with example.

3. Explain the operations of list with example.

4. Explain the conditional statements with example.

5. Write a python program to add two matrices.