Term-I Examination

Computer Science(Code083)

Class: XII **Date:**

Time:3 hrsMarks:70

General Instructions:

1.This question paper contains two parts A and B.Each part is Compulsory.

2.Both Part A and Part B have choices.

3.Part-A has 2 sections:

a.Section-I is short answer questions,to be answered in one word or one line.

b.Section-II has two case studies questions.Each case study has 4 case-based sub-parts.An examinee is to attempt any 4 out of the 5 subparts.

4.Part-B is Descriptive paper

5.Part-B has three sections

a.Section-I is short answer question of 2 marks each in which two question have internal options.

b.Section-II is long answer questions of 3 marks each in which two questions have internal options.

c.Section-III is very long answer questions of 5 marks each in which one question has internal option.

6.All programming questions are to be answered using python Language only.

Part-A

Section-I

This section consists of 21 Questions (1 to 21). Attempt any 15 questions from this section.Choose the best possible option.

1.Which keyword is used to begin the definition of a function ? **1**

a.Define **b.DEF** **c.def** **d.Def**

2. A _____ in itself is a bunch of bytes stores on some storage device like hard-disk

,thumbdrive etc. **1**

a.file **b.data** **c.information** **d.None of these**

3. How can we create an empty list in python? **1**

a. list=() **b. null** **c. list** **d. list=[]**

4.There are mainly _____ types of data files. **1**

a.2 **b.3** **c.4** **d.None of these**

5.What will be the output of the following Python code? **1**

from math import factorial

print (math.factorial (5))

a.120

b.Nothing is printed

c.Error, method factorial doesn't exist in math module

d.Error, the statement should be: print(factorial(5))

6.In a stack, if a user tries to remove an element from an empty stack, the situation is called? **1**

a. Underflow **b. Empty collection** **c.Overflow** **d. Garbage collection**

7. Which of the statements is used to import all names from a module into the current calling module? **1**

a.import **b.from** **c. import *** **d.dir()**

8.Computer store every file as a collection of _____ and _____. **1**

a.data,information **b.0's ,1's** **c.text,numbers** **d.None of these**

9.In a program,a function can be called _____ times. **1**

a.2 **b.3** **c.5** **d.Multiple times**

10.A_____ files stored the information in the form of a stream(sequence) of bytes.1

a.text files **b.binary files** **c.Both(a) and (b)** **d.None of these**

11.The collection of modules and packages that together cater to a specific type of applications or requirements, is called ____. **1**

a. module b. library c.classes d.documentation

12.An independent triple quoted string given inside a module, containing documentation related information is a ____. 1

a. Documentation string b.docstring c.dstring d.stringdoc

13.In _____ file,there is no delimiter in a line i.e.EOL. 1

a.text files b.binary files c.Both(a) and (b) d.None of these

14.defcal(n1):what is n1? 1

a.parameter b.Argument c.Keyword d.None of the above

15.In a stack, all insertions take place at _____ end(s). 1

a top b. front c. rear d. any

16.Choose correct output for the following sequence of operations (★ signifies top). 1

push(5), push(8), pop, push(2), push(5), pop, push(1)

a. 85251b. 85521c.2551d.521

17.Write the output of the following: 1

```
defcal(m,n):
if m==n:
return m*3
else:
return n*2
 s=cal("Amit","Anuj")
print(s)
```

a.AmitAmitAmit b.AmitAmit c.AnujAnujAnuj d.AnujAnuj

18.Inpython,Which function is use to open the file? 1

a.open_file() b.file_open() c.open() d.None of these

19.Which of the following random module functions generates a floating point number? 1

a. randrange() **b. randint()** **c. uniform()** **d.all of these**

20.Which of the following is an application of stack? **1**

a. Finding factorial **b.Reversing of a string** **c.Infix to postfix** **d.All of the above**

21.Which of the following statement will execute in last? **1**

```
def s(n1):#statement1
print(n1) #statement2
n2=4 #statement 3
s(n2) #statement 4
```

a.Statement 1 **b.Statement 2** **c.Statement 3** **d.Statement4**

Section-II

Both the Case study based questions are compulsory.Attempt any 4 sub parts from each question.Each question carries 1 mark.

22.Laya is working in a IT Company writing a program to add record in an already existing CSV file "stud.csv".She has written the following code.As a friend of Laya,help her to complete the code given below.

```
_____ # Statement 1                                    1
fn=open(_____,_____,newline='') # Statement 2          1
sdata=CSV._____  # Statement 3                         1
temp=[ ]
sid=int(input("Enter Student id:"))
sname=input("Enter Student name:")
class=input("Enter Class:")
record=[ _____ ]  # Statement 4                       1
sdata.dump(_____) # Statement 6                        1
fn.close()
```

23. Fill in the blanks with an appropriate word:

Import pickle

_____ write(): **1**

f=open(“student.dat”,”____”) **1**

while True:

r=int(input(“Enter the Roll no:”))

n=input(“Enter the name:”)

data=(___,n) **1**

pickle._____(data,f)
1

ch=input(“More?(Y/N)”)

if ____ in ‘Nn’: **1**

break

Part-B

Section-I

24.What is the utility of python standard library math module and random module? **2**

25.How to create a function in python? Explain in detail? **2**

OR

What is default parameter?Give an example program for it?

26.What is the difference between “w” and “a” modes? **2**

27.What are docstrings?How are they useful? **2**

OR

What is a library in python?

28.What are the comments? What are the role comments in the program? How to write single-line comments and multi-line comments? **2**

29.Write an algorithm to implement push operation? **2**

30.What are the advantages of CSV file format? **2**

31.What are the different file-processing modes supported by python? 2

32.Evaluate the following postfix notation to expression.Show status of stack after every operation. (12,2,7,34,20,-,+,5,+) 2

33.What are the arguments supported by python? Explain each of them with a suitable example? 2

Section-II

34.What will be the output of following code? 3

```
def interest(prnc,time=2,rate=0.10):
return(prnc*time*rate)
print(interest(5600,1))
print(interest(4000,rate=0.05))
print(interest(4000,3,0.12))
print(interest(time=4,prnc=4000))
```

OR

What possible outputs are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variables Lower and Upper.

```
import random
AR=[20,30,40,50,60,70]
Lower=random.randint(1,4)
Upper=random.randint(2,5)
for K in range(Lower,Upper+1):
print(AR[K],end="#")
```

35.Find and write the output of the following python code: 3

```
def Call(P=40,Q=20):
    P=P+Q
    Q=P-Q
```

```
print(P,'@',Q)
return P
R=200
S=100
R=Call(R,S)
print(R,'@',S)
S=Call(S)
print(R,'@',S)
```

36.What is the output produced by following code? **3**

```
obj=open("New.txt","w")
obj.write("A poem by paramhansaYogananada")
obj.write("Better than Heaven or Arcadia")
obj.write("I love thee,O my India!")
obj.write("And thy love I shall give")
obj.write("To every brother nation that lives.")
obj.close()
obj1=open("New.txt","r")
s1=obj1.read(48)
print(s1)
obj1.close()
```

37.What is meant by Polish strings? Explain in detail ? **3**

OR

Identify the error in the following code.

```
Import pickle
data=['one',2,[3,4,5]]
```

with open('data2.dat','rb') as f:

pickle.dump(data,f)

Section-III **5**

38.Write a function countmy() in Python to read the text file "Story.txt" and count the number of times "my" or "My" occurs in the file. For example if the file "Story.TXT" contains:

The countmy() function should display the output as: "my occurs 2 times".

39.Write a program that generates 4 terms of an AP by providing initial and step values to a function that returns first four terms of the series. **5**

40.Write a program that inputs a main string and then creates an encrypted string by embedding a short symbol based string after each character.The program should also to produce the decrypted string from encrypted string. **5**

OR

Write a algorithm to convert infix to postfix Conversion using Stack.

ALL THE BEST