



Date:/12/2023 GRADE: XI	ANNUAL EXAMINATION-2023-24 COMPUTER SCIENCE(083) MARKING SCHEME	Max marks:70 Time: 3 Hour
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SECTION A		
1.	State True or False "Tuple is datatype in Python which contain data in key-value pair." False	1
2.	Which of the following is not a valid arithmetic operator? a) % b) // c) # d) **	1
3.	What will be the output of the following python list operation? data =[10,20,30,40,20,60,70] print(count(20)) a) [20] b) 2 c) 3 d) [10,20,30,40,70]	1
4.	Choose one option from the following that will be the correct output after executing the below python expression. print(True or (not True) and False) a) False b) True c) or d) not	1
5.	Select the correct output of the following python code: str="Myprogram is program for you" t = str.split("p") print(t) a) ['My ', 'rogram is ', 'rogram for you'] b) ['My ', 'program', ' is program for you'] c) ['My ', ' is program for you'] d) ['My ', ' is ', ' for you']	1
6.	To create an empty dictionary we use . a) d={} b) d=[] c) d=() d) d=={}	1
7.	Which of the following statements is True? a) We can repeat a key in a dictionary. b) A tuple is a mutable data type. c) append() is used to add a single element in the beginning of the list. d) extend () is used to add elements in the end of the list.	1
8.	Convert the decimal number (125) ₁₀ into its binary equivalent. (1111101)₂	1

9.	Which of the following operations on a string will generate an error? a) "PYTHON"*2 b) "PYTHON" + "10" c) "PYTHON" + 10 d) "PYTHON" + "PYTHON"	1
10.	Using someone else's Twitter handle to post something will be termed as : a) Fraud b) Identity theft c) Online stealing d) Violation	1
11.	What is the output of <code>math.ceil(4.4)</code> ? a) 5 b) 4 c) 4.0 d) 5.0	1
12.	Given a Tuple <code>t = (10, 20, 30, 40, 50, 60, 70, 80, 90)</code> What will be the output of <code>print(t[-1:-6:-2])</code> ? (a) (90,70,50) (b) (60,70,80,90) (c) (90,80,70) (d) ()	1
13.	What shall be the output for the execution of the following Python Code ? <code>Cities = ['Delhi', 'Mumbai']</code> <code>Cities[0], Cities[1] = Cities[1], Cities[0]</code> <code>print(Cities)</code> ['Mumbai', 'Delhi']	1
14.	What will be the output of the following python expression? <code>print(2**3**2+6//2)</code> a) 510 b) 515 c) 512 d) 320	1
15.	Identify the output of the following Python statements <code>x = 2</code> <code>while x < 9:</code> <code>print(x, end='')</code> <code>x = x + 1</code> a. 12345678 b. 123456789 c. 2345678 d. 23456789	1
16.	What is the output of the following code? <code>Str="hello"</code> <code>print(list(Str))</code> a. ['h','e','l','l','o'] b. [hello] c. ['hello'] d. {hello}	1
<p>Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as</p> <p>(a) Both A and R are true and R is the correct explanation for A</p> <p>(b) Both A and R are true and R is not the correct explanation for A</p> <p>(c) A is True but R is False</p> <p>(d) A is false but R is True</p>		

17.	<p>Assertion (A): Python is a case sensitive language and supports dynamic typing. Reasoning (R): In python the type of a variable determined at run time and the errors that only show up at run time.</p> <p>Both A and R are true and R is not the correct explanation for A</p>	1
18.	<p>Assertion (A) : Digital footprint is the trail of data we leave behind when we visit any website (or use any online application or portal) to fill-in data or perform any transaction. Reason (R) : While online, all of us need to be aware of how to conduct ourselves, how best to relate with others and what ethics, morals and values to maintain.</p> <p>Both A and R are true and R is the correct explanation for A(both (A) AND (B) answers can give marks)</p>	1
SECTION B		
19.	<p>Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.</p> <pre> Num = int(input("Number:")) s=0 for i in range(1,Num,3): s+=1 if i%2==0: print(i*2) else: print(i*3) print (S) </pre>	2
20.	<p>a) What will be the output of the following string operation? str="PYTHON@LANGUAGE" print(str[2:12:2])</p> <p>TO@AG</p> <p>b) Write the output of the following code. data = [1,2,4,5] for x in data: x = x + 10 print(data)</p> <p>[1,2,4,5]</p>	1+1
21.	<p>What is meant by traversing a list? Write a program to traverse a list.</p> <p>Accessing each element from the list. data = [1,2,4,5] for i in data: print(i)</p>	2

22.	<p>Python is a free and open source software ,what do you understand by this feature. What are the features of python programming? It means Python is freely available without any cost. Its source code is also available. a) Easy to use b) Expressive language c) Interpreted Language d) Its Completeness e) Cross platform independent f) Free and open source g) Variety of Usage/Application(any 4)</p>	2
23.	<p>a) Define digital footprint and its types. A digital footprint is data that is left behind when users have been online.</p> <p>b) Define copyright. Copyright refers to the legal right of the owner of intellectual property. In simpler terms, copyright is the right to copy.</p>	1+1
24.	<p>Write a python program to print the largest among two numbers. num1, num2 = 20 , 30 if num1>num2: print(num1) else: print(num2)</p>	2
25.	<p>a) Write a program to remove an element '25' from the given Tuple. tuple1 = (5, 10, 15, 20, 25, 30) tuple1=list(tuple1) del tuple1[4] tuple1=tuple(tuple1) print(tuple1)</p> <p style="text-align: center;">OR</p> <p>b) Explain tuple operations with examples. (Explain the tuple operations)</p>	2
SECTION C		
26.	<p>a) Anubhav spends too much time on internet. Explain him some side effects of spending too much time on computers?(Any side effects)</p> <p>b) Draw a circuit diagram corresponding to the following Boolean expressions: i. $(U.V')+(U'W')$</p>	1+2
27.	<p>a) What are tokens? With the help of a python program, explain the tokens. OR</p> <p>b) What are mutable and immutable data types? Give suitable examples in Python.</p>	3

28.	<p>a) Predict the output of the Python code given below:</p> <pre>tuple1 = (11, 22, 33, 44, 55 ,66) list1 =list(tuple1) new_list = [] for i in list1: if i%2==0: new_list.append(i) new_tuple = tuple(new_list) print(new_tuple)</pre> <p>(22, 44, 66)</p> <p style="text-align: center;">OR</p> <p>b) Explain cyber crime and cyber safety.</p>	3
29.	<p>a) Predict the output of the following python code:</p> <pre>data = [2,4,2,1,2,1,3,3,4,4] d = {} for x in data: if x in d: d[x]=d[x]+1 else: d[x]=1 print(d)</pre> <p>{2: 3, 4: 3, 1: 2, 3: 2}</p>	3

33. Consider the following string mySubject:

```
mySubject = "Computer Science"
```

What will be the output of the following string operations :

i. `print(mySubject[0:len(mySubject)])`

ii. `print(mySubject[-7:-1])`

iii. `print(mySubject[: :2])`

iv. `print(mySubject[6:1:-2])`

v. `print(mySubject.replace("Science","Application"))`

vi. `print(2*mySubject)`

Computer Science

Scienc

Cmue cec

Computer Application

Computer ScienceComputer Science

OR

c) Find output of the following code

```
str="python"
```

```
len(str)
```

```
6
```

```
str.upper( )
```

```
'PYTHON'
```

```
str.islower( )
```

```
True
```

```
str.find('o')
```

```
4
```

```
str.capitalize()
```

```
'Python'
```

```
str.isdigit()
```

```
False
```

```
for i in str:
```

```
    print(i)
```

```
p
```

```
y
```

```
t
```

```
h
```

```
o
```

```
n
```

5

SECTION E

34. a) Write a program in python to print the following pattern

1

4

1 2

1 2 3

1 2 3 4

1 2 3 4 5

```
for i in range(1,6):  
    for j in range(1,i+1):  
        print(j,end=" ")  
    print()
```

OR

b) Different cybercrimes are listed in the box as below

Bank Fraud, Cyber bullying, Hacking, Cyber stalking

Identify a specific cybercrime (selecting from the above box) for each of the following

(a) A person complains that somebody has created a fake profile on the Facebook and is defaming his/her character with comments and pictures.

	<p>(b) A person complains that 4.5 Lacks rupees have been withdrawn online from his/her account by using net banking in two consecutive days</p> <p>(c) A person complains that somebody has cracked the password of his/her computer system and stolen valuable data and information.</p> <p>(d) A person complains that he/she is getting threatening messages by email, text or through comments on a social networking page .</p> <p>(i) Bank Fraud (ii) Identity Theft (iii) Cyber Stalking</p>	
35.	<p>Based on the following code answer the questions</p> <pre>import_____#1 AR=[20,30,40,50,60,70] FROM=random.randint(1,3) TO=random.randint(2,4) for K in range(FROM,TO+1): print (AR[K],end="##")</pre> <p>1. What module should be imported To execute the above code #1? A. math B. random C. rand D. area</p> <p>2. What will Be the maximum value of the variables FROM and TO? A. 3,4 B. 4,3 C. 2,4 D. 4,2</p> <p>3. What will Be the minimum value of the variables FROM and TO? A. 2,1 B. 1,2 C. 1,3 D. 1, 4</p> <p>4. What possible outputs(s) are expected to be displayed on screen at the time of execution of the program? A. 10#40#70# B. 30#40#50# C. 50#60#70# D. 40#50#70#</p>	4

END