



Date:04/12/2023 GRADE: XI	TERM2 -EXAMINATION-2023-24 COMPUTER SCIENCE(083)	Max marks:70 Time: 3 Hour
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General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only

SECTION A		
1.	State True or False "Python has a set of keywords that can also be used to declare variables"	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="My program 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.	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 math.ceil(4.4) ? a) 5 b)4 c)4.0 d)5.0	1
12.	Given a Tuple t= (10, 20, 30, 40, 50, 60, 70, 80, 90) What will be the output of print(t[-1:-6:-2])? (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 ? Cities = ['Delhi', 'Mumbai'] Cities[0], Cities[1] = Cities[1], Cities[0] print(Cities)	1
14.	What will be the output of the following python expression? print(2**3**2+6//2) a) 510 b) 515 c) 512 d) 320	1
15.	Identify the output of the following Python statements x = 2 while x < 9: print(x, end='') x = x + 1 a. 12345678 b. 123456789 c. 2345678 d. 23456789	1

16.	<p>What is the output of the following code?</p> <pre>Str="hello" print(list(Str))</pre> <p>a. ['h','e','l','l','o'] b. [hello] c. ['hello'] d. {hello}</p>	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.</p> <p>Reasoning (R): In python the type of a variable determined at run time and the errors that only show up at run time.</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.</p> <p>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>	1
<p>SECTION B</p>		
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"</p> <pre>print(str[2:12:2])</pre> <p>b) Write the output of the following code.</p> <pre>data = [1,2,4,5] for x in data: x = x + 10 print(data)</pre>	1+ 1

21.	What is meant by traversing a list? Write a program to traverse a list.	2
22.	a) Python is a free and open source software, what do you understand by this feature. b) What are the features of python programming?	2
23.	a) Define digital footprint and different types of digital footprint.	2
24.	Write a python program to print the largest among two numbers.	2
25.	a) Write a program to remove an element '25' from the given Tuple. tuple1 = (5, 10, 15, 20, 25, 30) OR b) Explain common tuple operations with examples.	2
SECTION C		
26.	a) Anubhav spends too much time on internet. Explain him some side effects of spending too much time on computers? b) Draw a circuit diagram corresponding to the following Boolean expressions: i. $(U.V')+(U'W')$	1+ 2
27.	a) What are tokens? With the help of a python program, explain the tokens. OR b) What are mutable and immutable data types? Give suitable examples in Python.	3
28.	a) Predict the output of the Python code given below: <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> OR <pre> S = "LOST" L = [10, 21, 33, 4] D={} for I in range(len(S)): if I%2==0: D[L.pop()] = S[I] else: D[L.pop()] = I+3 for K,V in D.items(): print(K,V,sep="*") </pre>	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 style="text-align: right;">OR</p> <p>b) Predict the output of the following python code:</p> <pre> s='Be sm@rt with Python' k=len(s) m="" for i in range(0,k): if(s[i].isupper()): m=m+s[i].lower() elif s[i].isalpha(): m=m+s[i].upper() elif s[i].isspace(): m=m+'\$' else: m=m+' ' print (m) </pre>	3
30.	<p>If <code>x=['L','a','n','g','u','a','g','e']</code>. <code>y=['I','s']</code> Find a) <code>print(x[1:6:2])</code> b) <code>print(x[-3:])</code> c) <code>print(x[:1:-3])</code> d) <code>print(x+y)</code> e) <code>print(y*3)</code> f) <code>print(x)</code></p>	3
SECTION D		
31.	<p>a) What is a dictionary in python? b) <code>D={1:"One",2:"Two",3:"Three"}</code> .Predict the output</p> <p>i)for i in D: <code>print(i,":",D[i])</code></p> <p>ii) <code>print(D.keys())</code></p>	1+ 4

	iii) print(D.values()) iv) print(D.get(3)) v) print(len(D))	
32.	a) Write a python program to read a string and count the number of vowels , consonants ,uppercase and lower case letters present in it. b) Explain Patent and Trademark <p style="text-align: center;">OR</p> a) Write a python program to read a three digit number and check whether the given number is Armstrong or not. b) Explain IPR and Copyright	3+ 2
33.	a) 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) b) Tuples can be used as keys in Python dictionaries. Explain <p style="text-align: center;">OR</p> a) Find output of the following code <p style="text-align: center;">str="python"</p> a) len(str) b) str.upper() c) str.islower() d) str.find('o') e) str.capitalize() f) How to check whether the given string contains only letters g) for i in str: <p style="text-align: center;">print(i)</p> b) Can list be used as key to dictionary ? Justify your answer.	5

SECTION E

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

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

b)L=[10,20,11,21,34,55]

Write a python program to print all the even numbers from the list.

OR

a)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.

- (i) A person complains that somebody has created a fake profile on Facebook and defaming his/her character with abusive comments and pictures.
- (ii) A person complains that 4.5 Lacks rupees have been withdrawn online from his/her account by using net banking in two consecutive days.
- (iii) A person complains that somebody has cracked the password of his/her computer system and stolen valuable data and information.
- (iv) A person complains that he/she is getting threatening messages by email, text or through comments on a social networking page .

b) Write a program in python to print the following pattern

```
*
* *
* * *
* * * *
* * * * *
```

4

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?</p> <p>A. 10#40#70# B. 30#40#50# C. 50#60#70# D. 40#50#70#</p>	4
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