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**INDIAN SCHOOL MUSCAT
FINAL EXAMINATION 2023
COMPUTER SCIENCE (083)**



CLASS : XI
DATE: 12.02.2023

TIME ALLOTTED : 3 HRS.
MAXIMUM MARKS:70

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- All programming questions are to be answered using Python Language only.

- What is the function of BIOS ? 1
- What are language processors? Give one example of language processor. 1
- Give one example each of a package and utility software 1
- Convert: 1
20 KiloByte = _____ GigaByte
- Convert the following: 2
 - $(7CA)_{16} = (\rule{1cm}{0.4pt})_{10}$
 - $(8912)_{10} = (\rule{1cm}{0.4pt})_8$
- Differentiate between system software and application software. 2
- What is the difference between Primary memory and Auxiliary memory? 2
- Raj has written a statement `STR="Hakuna Matata"`. Which of the following print statement will give reverse of the word **Hakuna** as output: 1
 - `STR[-14:-8:-1]`
 - `STR[-14:-8:1]`
 - `STR[-8:-14:-1]`
 - `STR[-8:-14:1]`
- Give the output of the following code snippet: 1

```
a=[1,3,6,8,11,18,10,2,0,21]
x=a[3:len(a)-3]
print ( x )
```
- If `L = [1,2,3,4,5,6,7,8]` 1
What will be the output of following statements?

- i) L[: :-2]
ii) L[3: :2]
11. Find and write the output of the following python code: 1

```
a=("Amit", "Brinda","Ashish","Sumanta")
print(a.index("Brinda"))
```
12. In the question given below, there are two statements marked as Assertion (A) and Reason (R). 1
Mark your answer as per the options provided.
- Assertion(A): Tuples are mutable.
Reason(R): It is not possible to change the value of a tuple.
- A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.
13. The record of a student (Name, RollNo, Marks in five subjects and percentage of marks) is 2
stored in the following list:
RecordList = ['Rishabh', 'B-74', [57,94,91,73,82], 79.4]
- Write Python statements to retrieve the following information from the list RecordList(Single statement to each of the question).
- a) Percentage of the student
b) Marks in the fifth subject
c) Maximum marks of the student
d) Change the name of the student from 'Rishabh' to 'Ritika'
14. Find error in the following code (if any) and correct code by rewriting code and underline the 2
correction; -

```
for name in [ 'Shruthi','Priya','Pradeep','Vaishnav']:  
    print name  
    if name[0] = 'P'  
        break  
else:  
    print('Over')  
    print("Done")
```
15. Find and write the output of the following python code: 2

```
L=["X",20,"Y",10,"Z",30]  
CNT = 0  
ST = ""  
INC = 0  
for C in range(1,6,2):  
    CNT= CNT + C  
    ST= ST + L[C-1]+"@"  
    INC = INC + L[C]  
print (CNT,INC,ST)
```

16. Explain for...else loop structure in Python. Give an example. 2
17. What is the difference between a literal and an identifier? Give example of each. 2
18. Give the output of the following code snippet: 2
- ```

tuple1 = ('A','B','C','D')
tuple2= ('1','2','3','4')
tuple3= tuple1+tuple2
tuple4 = tuple3[:-4]+tuple3[:3]
print ("Tuple 4 is ", tuple4)
t1=(41,-4,7,-3,4,2,12,-2)
print(t1[t1[1]] + t1[t1[-4]])

```
19. Write a Python program to input the value of y and n and print the sum of the following series using loop: 2
- 1+2y+3y+4y+5y+. ....upto n terms.
20. Write a script to print following using nested loop. 2
- ```

A
A B
A B C
A B C D
A B C D E

```
21. Discuss the following functions of Dictionary with suitable example: 3
- (a) fromkeys() (b) popitem() (c) items()
22. A clothing company is giving discounts on garments. The following discount rates are given on different range of amount spent. Input the amount and find the net price after discount on a purchase.(Netprice=Amount-Discount) 3

Amount	Discount rate
0-5000	5%
5001-15000	12%
15001-25000	20%
above 25000	30%

23. Write a python program input an integer N from the user. Check whether it is prime or not. 3
24. Write a program to read a list of numbers and create another list which store even numbers to left and odd numbers to right of a new list. 3
- Example: if list is containing [3,5,6,2,7,4,5,8]
then new list should contain [6,2,4,8,3, 5, 7, 5]
25. Write a program to a number. Find the reverse of the number. 3

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| 26. | Write a program to input a list of strings. Find the longest string in the list. | 3 |
| 27. | Write a program to input a tuple of integers and count how many numbers are divisible with 5. For example, is tuple stores 3,7,15,35,56,45,65 then output should be –
Total Numbers divisible by 5 are : 4 | 3 |
| 28. | Write a Python Program to create a dictionary with itemcode, itemname and price of n products in a shop and display the itemnames of products whose price is above 200. | 3 |
| 29. | Abdul got a call from Bank office and asking PIN, OTP and some details for updation of his ATM card. Which of the following is not suggested for Abdul?
(a) He should provide all details as desired by caller.
(b) He should not give any details and contact bank helpline number to check the validity of the call received.
(c) He should inform local police about the call. | 1 |
| 30. | Explain what is meant by IPR. | 1 |
| 31. | What are proprietary software? | 1 |
| 32. | What do you mean by Digital Footprints? Explain the two types. | 2 |
| 33. | Differentiate hacker and cracker. | 2 |
| 34. | i) Write any two examples of software license.
ii) Define ransomware. | 2 |
| 35. | Explain a)Phishing b) Data protection c) Adware | 3 |
| 36. | Define i)Plagiarism ii) Trojan horse iii) Trademark infringement | 3 |

****END OF THE QUESTION PAPER****

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MAXIMUM MARKS:70

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- All programming questions are to be answered using Python Language only.

1. Convert: 12 MegaBytes = _____ TeraBytes. 1
2. What is system software? Give one example of system software. 1
3. Give one example each of a software library and customized software 1
4. What is the function of Disk defragmenter? 1
5. Differentiate between compiler and interpreter. 2
6. What is the difference between RAM and ROM? 2
7. Convert the following: 2
 - i) $(342)_8 = (\text{_____})_{10}$
 - ii) $(247)_{10} = (\text{_____})_2$
8. If $L = [1,2,3,4,5,6,7,8]$, What will be the output of following statements? 1
 - i) $L[: -2]$
 - ii) $L[3: :2]$
9. Find and write the output of the following python code: 1

```
a=("Amit", "Brinda","Ashish","Sumanta")
print(a.index("Ashish"))
```
10. Give the output of the following code snippet: 1

```
a=[1,3,6,8,11,18,10,2,0,21]
x=a[3:len(a)-3]
print ( x )
```

11. Raj has written a statement `STR="Hakuna Matata"`. Which of the following will help her to print only **"Matata"**. 1
- i) `STR[7:22]` ii) `STR[-6:]` iii) `STR[-5:-9:-1]` iv) `STR[-9:-5]`
- a) Both i & ii b) Both i & iv
c) Only iv d) Only ii
12. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the options provided. 1
- Assertion(A): Dictionary is mutable.
Reason(R): `items()` function belongs to dictionary.
- A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.
13. Find error in the following code (if any) and correct code by rewriting code and underline the correction; - 2
- ```
for name in ['Shruthi', 'Priya', 'Pradeep', 'Vaishnav']:
 print (name)
 if name[0] = 'P':
 break
 else:
 print('Over')
 print("Done")
```
14. Give the output of the following code: 2
- ```
i=0  
while i<3:  
    print(i,end='%')  
    if i==2:  
        break  
    i=i+1  
else:  
    print(7)
```
15. The record of a student (Name, RollNo, Marks in five subjects and percentage of marks) is stored in the following list: 2
- RecordList = ['Rishabh', 'B-74', [57,94,91,73,82], 79.4]**
- Write Python statements to retrieve the following information from the list RecordList (Single statement to each of the question).
- a) Change the Roll No of the student from **'B-74'** to **'S-74'**
b) Print Marks in the third subject
c) Print Minimum marks of the student
d) Print Percentage of the student

16. Explain the for...else loop with suitable example. 2
17. Give the output of the following code snippet: 2
- ```

tuple1 = ('A','B','C','D')
tuple2= ('1','2','3','4')
tuple3= tuple1+tuple2
tuple4 = tuple3[:-4]+tuple3[:3]
print ("Tuple 4 is ", tuple4)
t1=(41,-4,7,-3,4.2,12,-2)
print(t1[t1[1]] + t1[t1[-4]])

```
18. WAPP to input the value of y and n and print the sum of the following series using loop: 2  
 $1+2y+3y+4y+5y+ \dots$  upto n terms.
19. What is the difference between a keyword and an identifier? Give example of each. 2
20. Write a script to print following using nested loop. 2
- ```

1
1 2
1 2 3
1 2 3 4

```
21. A clothing company is giving discounts on garments. The following discount rates are given 3
on different range of amount spent. Input the amount and find the net price after discount on a purchase.(Netprice=Amount-Discount)
- | Amount | Discount rate |
|-------------|---------------|
| 0-5000 | 5% |
| 5001-15000 | 12% |
| 15001-25000 | 20% |
| above 25000 | 30% |
22. Discuss the following functions of Dictionary with suitable example: 3
(a) fromkeys() **(b) sorted()** **(c) values()**
23. Write a python program input an integer N from the user. Find the reverse of the number. 3
(For eg: if the number is 1024, Reverse is 4201) .
24. Write a program to input a tuple of integers and count how many numbers are divisible by 3. 3
For example, if tuple stores 3,7,15,35,56,45,65 then output should be –
Total Numbers divisible by 3 are : 3
25. Write a program to input a number and check whether it is prime or not. 3

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| 26. | Write a Python Program to Create a dictionary with the flightcode, flightname and fare of n flights of an airline and display the names of flights with fare greater than 8000. | 3 |
| 27. | Write a program to read a list of numbers and create another list which store odd numbers to left and even numbers to right of a new list.
Example: if list is containing [3,5,6,2,7,4,5,8]
then new list should contain [3, 5, 7, 5, 6,2,4,8] | 3 |
| 28. | Write a program to input a list of strings. Find the longest string in the list. | 3 |
| 29. | Explain what is meant by Patent. | 1 |
| 30. | What are proprietary software? | 1 |
| 31. | Varun got a call from Bank office and asking PIN, OTP and some details for updation of his ATM card. Which of the following is not suggested for Varun?
(a) He should not give any details and contact bank helpline number to check the validity of the call received.
(b) He should provide all details as desired by caller.
(c) He should inform local police about the call. | 1 |
| 32. | What do you mean by netiquette? Write any two rules of social media etiquettes. | 2 |
| 33. | i) What are the advantages of software licensing (Any two)
ii) Write any two examples of software license. | 2 |
| 34. | What is eavesdropping ? Write two steps to prevent eavesdropping. | 2 |
| 35. | Define i)Plagiarism ii) Trojan horse iii) Copyright infringement | 3 |
| 36. | Explain a)Malware b) Phishing c) Cyber trolling | 3 |

******END OF THE QUESTION PAPER******

ROLL NUMBER				
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CLASS : XI
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MAXIMUM MARKS:70

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- All programming questions are to be answered using Python Language only.

1. Give one example each of a package and utility software. 1
2. What are language processors? 1
3. 20 PetaByte = _____ GigaByte 1
4. What is the function of BIOS ? 1
5. Convert the following: 2
 - i) $(4234)_{10} = (\text{_____})_{16}$
 - ii) $(1101101)_2 = (\text{_____})_{10}$
6. Differentiate between system software and application software. 2
7. What is the difference between Primary memory and Auxiliary memory? 2
8. Give the output of the following code snippet: 1

```
a=[1,3,6,8,11,18,10,2,0,21]
x=a[2:len(a)-4]
print ( x )
```
9. Raj has written a statement **STR="Wonderful Life"**. Which of the following print statement will give reverse of the word **Wonder** as output: 1
 - a) STR[-9:0:-1]
 - b) STR[5:0:-1]
 - c) STR[:5:-1]
 - d) STR[5::-1]
10. If L = [3,4,7,8,1,2,3] 1

What will be the output of following statements?

 - i) L[: :-2]

ii) L[3: :2]

11. Find and write the output of the following python code: 1
a=("Amit", "Brinda","Ashish","Sumanta")
print(a.index("Sumanta"))

12. In the question given below, there are two statements marked as Assertion (A) and Reason (R). 1
Mark your answer as per the options provided.

Assertion(A): Tuples are immutable.

Reason(R): It is not possible to change the value of a tuple.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not the correct explanation of A.
- C. A is true but R is false.
- D. A is false but R is true.

13. The record of a student (Name, Roll No.,Marks in five subjects and percentage of marks) is 2
stored in the following list:
RecordList = ['Rishabh', 'B-74', [57,94,91,73,82], 79.4]

Write Python statements to retrieve the following information from the list RecordList. Single statement to each of the question)

- a) Percentage of the student
- b) Marks in the fourth subject
- c) Minimum marks of the student
- d) Change the name of the student from 'Rishabh' to 'Roma'

14. Find and write the output of the following python code: 2
L=["A",17,"B",9,"C",22]
CNT = 0
ST = ""
INC = 0
for C in range(1,6,2):
 CNT= CNT + C
 ST= ST + L[C-1]+"@"
 INC = INC + L[C]
print (CNT,INC,ST)

15. Find errors in the following code (if any) and correct code by rewriting code and underline the 2
correction; -
for name in ['Shruthi','Priya','Pradeep','Vaishnav'):
 print name
 if name[0] = 'P'
 break
else:
 print('Over')
 print("Done")

16. Give the output of the following code snippet: 2
- ```

tuple1 = ('M','N','P')
tuple2= ('4','2','7','9')
tuple3= tuple1+tuple2
tuple4 = tuple3[:-3]+tuple3[:2]
print ("Tuple 4 is ", tuple4)
t1=(41,-4,5,-3.2,4,12,-2)
print(t1[t1[2]] + t1[t1[-3]])

```
17. What is the difference between a literal and an identifier? Give example of each. 2
18. Explain while...else loop structure in python. Give an example. 2
19. Write a Python program to input the value of x and n and print the sum of the following series using loop: 2
- 1+2x+3x+4x+5x-. .....upto n terms.
20. Write a script to print following using nested loop. 2
- ```

2
2 4
2 4 6
2 4 6 8

```
21. Discuss the following functions of Dictionary with suitable example: 3
- (a) sorted() (b) popitem() (c) values()
22. A clothing company is giving discounts on garments. The following discount rates are given on different range of amount spent. Input the amount and find the net price after discount on a purchase.(Netprice=Amount-Discount) 3

Amount	Discount rate
0-5000	5%
5001-15000	12%
15001-25000	20%
above 25000	30%

23. Write a program to print the first 10 fibonacci numbers using loop. 3
24. Write a program to read a list of numbers and create another list which store half of each even number and double of each odd number in the list. 3
- Example: if list is containing [3,5,6,2,7,4,5,8]
then new list should contain [6,10,3,1,14,2,10,4]
25. Write a python program to input a number. Check whether it is prime or not. 3

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|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 26. | Write a program to input a list of strings. Find the longest string in the list. | 3 |
| 27. | Write a program to input a tuple of integers and count how many numbers are divisible with 7. For example, is tuple stores 3,7,15,35,56,45,65 then output should be –
Total Number divisible by 7 are : 3 | 3 |
| 28. | Write a Python Program to create a dictionary with empID, name and salary of n employees of a company and display the names of employees whose salary is above 20000. | 3 |
| 29. | What are proprietary software? | 1 |
| 30. | Explain what is meant by Trademark infringement. | 1 |
| 31. | Abdul got a call from Bank office and asking PIN, OTP and some details for updation of his ATM card. Which of the following is not suggested for Abdul?
(a) He should provide all details as desired by caller.
(b) He should not give any details and contact bank helpline number to check the validity of the call received.
(c) He should inform local police about the call. | 1 |
| 32. | What do you mean by Data protection? Write any two steps to protect our data online. | 2 |
| 33. | What is plagiarism? Explain two methods to avoid plagiarism. | 2 |
| 34. | i) Explain Creative Commons.
ii) Define malware. | 2 |
| 35. | Define a)Phishing b) Digital footprints c) Ransomware | 3 |
| 36. | Explain i)IPR ii) Trojan horse iii) Eavesdropping | 3 |

****END OF THE QUESTION PAPER****