

Bhavan's Tripura Vidyamandir
2nd Term Examination 2024-2025
Class:-XI

Subject:-Computer Science with Python (083)

Time:-3 Hours.

Total:-70 Marks

Name of the student: _____ Roll: _____ Stream: _____ Sec: _____

General Instruction:-

1. This question paper contains five sections, **Section A to E**.
2. All questions are compulsory.
3. **Section A** has 18 questions carrying **01** mark each.
4. **Section B** has 7 Very Short Answer type questions carrying **02** marks each.
5. **Section C** has 5 Short Answer type questions carrying **03** marks each.
6. **Section D** has 3 Long Answer type questions carrying **05** marks each.
7. **Section E** has 2 questions carrying **04** marks each. There is no overall choice. However internal choice have been given for some questions only.
8. All programming questions are to be answered using **Python Language** only.

Section A

1. In for a in _____: , the blank can be filled with-
a) an iterable sequence b) a range() function
c) a single value d) an expression
2. The _____ function is used to delete an element to remove an element from a designated index in a list.
3. Which component of computer connects the processor to the other hardware?
a) System bus b) CPU c) Memory d) Input unit
4. A research student is expected to write a thesis on a topic. The student browses Internet for the topic and luckily finds it on the Internet. He copies and submits the entire thesis as his own research work. Which of the following activities appropriately categorises the act of the writer?
a) Spamming b) Phishing c) Plagiarism d) Trojan
5. Expand the following terms:
i) FSF ii) W3C
6. According to distributive law $A(B + C) = ?$
a) ABC b) AB + AC c) A + B + C d) A + BC
7. What is the value of the expression $10 + 3^{**} 3 * 2$?
a) 28 b) 739 c) 829 d) 64
8. Which of the following functions will return always a tuple of 3 elements?
a) Find() b) index() c) partition() d) split()
9. Write the output of the following:

```
a=(1,2,3,2,3,4,2,5)
print(min(a) + max(a) + a.count(2))
```


a) 13 b) 6 c) 9 d) Error
10. To avoid the tracking by website and storing of cookies, the private browsing opens a website in _____ mode
a) public b) incognito c) duplicate d) all of these
11. The `popitem()` removes the last entered element from a dictionary. (True/ False)
12. The _____ is responsible for carrying out arithmetic and logic operations.
13. What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code?

```
import random
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="#")
a) 10#40#70#      b) 30#40#50#      c) 50#60#70#      d) 40#50#70#
14. What is cache memory?
15. Which of the following is/are not legal string operators?
    a) in      b) +      c) *      d) /
16. When the following code runs, how many times is the line "x = x*2" executed?
x=1
while x<20:
    x=x*2
a) 2      b) 5      c) 4      d) 19

```

In the following questions, a statement of assertion (A) is followed by a statement of reason (R). mark the correct choice as:

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R true but R is not the correct explanation A.
- c) A is true but R is false (or partly true).
- d) A is false (or partly true) but R is true.
- e) Both A and R are false or not fully true.

17. **Assertion:** Phishing and Pharming, both are types of online deception

Reason: Phishing takes to a fraudulent site while pharming does not.

18. **Assertion:** A dictionary's value can be changed in place but not the keys.

Reason: A dictionary's keys must be of immutable types.

Section B

19. What do you understand by plagiarism? Why is it a punishable offence?
 20. Draw a logic circuit diagram for the following expression:

$$Y=ab + b'c + c'a'$$

Or

Why is primary memory termed as 'destructive write' memory but 'non destructive read' memory?

21. Describe the following Cybercrimes:

a) Cyber Bullying b) Cyber Stalking

Find the output of the following codes:

<pre> 22. s1="hello World!" index=0 while index<(len(s1)-3): print(s1[index],end=' ') index=index+1 </pre>	<pre> 23. b=[4,6,7,4,5,12,11,10,8,17] for i in range(1,3): for j in range(1,3): b[i]=4*i+j print(b[i]) </pre>
<pre> 24. dict={"data1":20,"data2":56,"data3":47} result=1 for key in dict: result=result+dict[key] print(result) </pre>	<pre> 25. i=2 while True: if i%3==0: break print(i) i=i+2 </pre>

Section C

26. Differentiate between sort() and sorted() functions.

Or

How are Dictionaries different from lists?

27. Why should intellectual property rights be protected?

Or

Discuss the three forms of IPR infringement.

28. Robbin wanted to gift his friend a football or a wrist watch. So he searched for many sports items and wrist watches online. But after every time he goes online, his web browser shows him advertisements about sports items and wrist watches.

- a) Why is this happening?
- b) How could have Robbin avoid them?
- c) How can Robbin get rid of this now?

29. Find the syntax error(s) in the following program. Write the correct code and underline the corrections with justification.

```
x=int(("Enter the value of x"))
for y in range(0,x)
    z=z+y
print(z)
```

30. Assume the following list definition in python

```
Letters=['a','b','o','c','p']
```

What would be displayed in a python shell for each of the following expressions if they are evaluated in the given order? If it give an error then write error.

- i) Letters + [2]
- ii) Letters + 2
- iii) Letters

Section D

31. Nevan has recently has changed his school so he is not aware of the people, but someone is posting negative, demeaning comments on his social media profile. He is also getting mails from unknown people. Every time he goes online, he finds someone chasing him online.

- a) Nevan is a Victim of _____.
 - i) Eavesdropping
 - ii) stolen identity
 - iii) Phishing
 - iv) Cyber stalking.
- b) A ____ is a person who posts or makes inflammatory, insincere, digressive, extraneous, or off topic messages online.
 - i) Troll
 - ii) bully
 - iii) stalker
 - iv) all of these.
- c) Which action should Nevan take?
 - i) He should share this incident only with his friends.
 - ii) He should not share it with anyone as it can cause serious problems.
 - iii) He should immediately report to the police.
 - iv) He should bring it to the notice of his parents and school authorities.
- d) _____ is a set of moral principles that governs the behaviour of a group or individual and regulates the use of computers
 - i) Copyright
 - ii) Computer Ethics
 - iii) Property rights
 - iv) privacy law
- e) Which act of law is applicable in India, for such type of cyber offences?
 - i) Cyber crime Act
 - ii) IT Act
 - iii) Netiquette Act
 - iv) None of these

32. a) What is string slicing? How is it useful?

- b) Differentiate between compiler and interpreter.

(3+2)

33. The word 'plagiarism' has emerged from a Latin word *plagiarius*, which means kidnapping. Plagiarism is an act of coping another person's idea, words or work and pretend that they are our own. The intention behind plagiarism could be malicious or it could be done accidentally like coping data from others computer without his/ her permission and redistributing further. If we talk about reasons behind plagiarism, then following could be the major factors:

- Fear of failure
- Not having enough knowledge
- Lack of enforcement
- Competition
- Lack of management skill

Based on the above information, answer the following questions:

- a) What is the meaning of plagiarist?
- b) Write any one guideline to avoid plagiarism.
- c) Give any two reason behind plagiarism.
- d) If we copy someone else's work without mentioning the source, what term is used for this?
- e) Can intention behind plagiarism be malicious?

Section E

34. What does each of the following expressions evaluate to? Suppose T is a tuple containing:

T=("These", ("are", "a", "few", "words"), "that", "we", "will", "use")

- a) T[1][0::2]
- b) "a" in T[1][0]
- c) T[:1]+T[1]
- d) T[2::2]

35. Write a python program to input a list of numbers and swap elements at even location with the elements at the odd location.

Or

Rubina wrote a python program to print the words starting with particular alphabet in a user entered string. Help her to execute this.

```

1) s= input("Enter any sequence:")
2) a= input("Enter any alphabet to find:")
3) found= False
4) words=s. _____
5) for word in _____
6)     if word.startswith(a):
7)         print( _____ )
8)         found= _____
9) if found==False:
10)    print("No words starting with user entered alphabet")

```

Answer the following:

- i. Write the function which will split the string in line 4.
- ii. Fill the blank in line 5 to satisfy the loop.
- iii. Write the variable which will print in line 7.
- iv. In line 8, what will be assigned to variable found?