



## CLASS – 11

### Computer Science

### SAMPLE PAPER - 3

Time Allowed: 3 hours

Maximum Marks: 70

#### General Instructions:

1. Please check this question paper contains 35 questions.
2. The paper is divided into 5 Sections- A, B, C, D and E.
3. Section A, consists of 18 questions (1 to 18). Each question carries 1 Mark.
4. Section B, consists of 7 questions (19 to 25). Each question carries 2 Marks.
5. Section C, consists of 5 questions (26 to 30). Each question carries 3 Marks.
6. Section D, consists of 2 questions (31 to 32). Each question carries 4 Marks.
7. Section E, consists of 3 questions (33 to 35). Each question carries 5 Marks.
8. All programming questions are to be answered using Python Language only.

#### Section A

[Each question carries 1 mark]

Question 1. Which of the following is not a pointing device? [1]

- (A) Mouse
- (B) Joystick
- (C) Light pen
- (D) Digitizer

Question 2. Which of the following Boolean operator operates on a single operand? [1]

- (A) NOT
- (B) AND
- (C) OR
- (D) NAND

Question 3. One octet represents \_\_\_ bits. [1]

- (A) 8
- (B) 16
- (C) 32
- (D) 1024



Question 4. Which of the following Python mode allows you to write Python program with multiple lines? [1]

- (A) Interactive Mode
- (B) Script Mode
- (C) Client Mode
- (D) Debug Mode

Question 5. Which of the following is not a Python token ? [1]

- (A) Keyword
- (B) Literals
- (C) List
- (D) Operators

Question 6. Which of the following symbol is not an operator? [1]

- (A) /
- (B) %
- (C) //
- (D) #

Question 7. The programmers who break into secure systems for malicious purpose are: [1]

- (A) crackers
- (B) hackers
- (C) breakers
- (D) burglars

Question 8. Which of these is not a core data type? [1]

- (A) List
- (B) Tuple
- (C) Dictionary
- (D) Class

Question 9. How many times will the loop run? [1]

```
i=2  
while(i>0):  
    i=i-1
```

- (A) 2
- (B) 3
- (C) 1
- (D) 0



Question 10. Which of the following sequences would be generated by the given line of code? [1]

- (A) 5 4 3 2 1 0 -1
- (B) 5 4 3 2 1 0
- (C) 5 3 1
- (D) None of the above

Question 11. What will be the output of below Python code?

```
str1 = "Artificial"  
print (str1[2:7])
```

- (A) tifici
- (B) rtifici
- (C) rtific
- (D) tific

Question 12. Which of the following will give output as [6,1, 0, 3, 8]?

If list=[8, 4, 3, 9, 0, 2, 1, 5, 6] [1]

- (A) print(list[7::-2])
- (B) print(list[::-2])
- (C) print(list[0:9:2])
- (D) print(list[0: :2] )

Question 13. Which of the following two Python codes will give same output?

- (i) print (tup [:-1 ] )
- (ii) print (tup [0 : 6] )
- (iii) print(tup[0:5])
- (iv) print (tup[-5:])

If tup= (3,5,1,6,7,0)

- (A) i, ii
- (B) ii, iv
- (C) i, iv
- (D) i, iii



Question 14. Which of the following will delete key\_value pair for key="tiger" in dictionary?

```
dic={"lion":"wild","tiger":"wild","cat":"domestic","dog":"domestic"}
```

- (A) del dic["tiger"]
- (B) dic["tiger"].delete()
- (C) delete(dic["tiger"])
- (D) del(dic["tiger"])

Question 15. Recycling of e-waste is needed for

- (A) protecting human and environmental health
- (B) save money
- (C) save space
- (D) help needy

Question 16. **State TRUE or FALSE.**

Technology such as computers, smartphones, laptops etc. have made life complex.

Q17 and 18 are ASSERTION (A) AND REASONING (R) based questions. 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 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

Question 17.

Assertion (A): Permission given to use a product by the copyright holder is License. [1]

Reason (R): One should not use the copyrighted product without taking license.

Question 18.

Assertion (A): Logical errors can easily be debugged. [1]

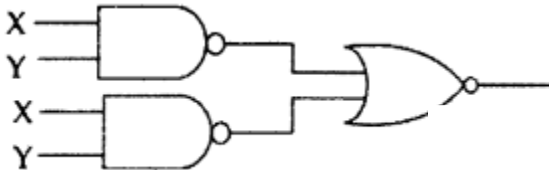
Reason (R): Run time errors are known as exception.

**Section B****[Each question carries 2 marks]**Question 18. Draw a logic circuit for the following Boolean expression:  $AB + CD'$ 

[2]

**OR**

Write the equivalent boolean expression for the following logic circuit.

Question 20. Convert  $(69)_{10}$  into equivalent binary number.

[1]

Question 21. Assume if  $A = 60$ ; and  $B = 13$ ; then find the values of the following :

[2]

(i)  $A \& B$ (ii)  $A | B$ **OR**

How many types of strings are supported in Python?

Question 22. Give the output of these Python codes:

`x = "Marvellous"`(i) `print(x[3:], "and", x[:2])`(ii) `print(x[-7:], "and", x[-4:-2])`**OR**

Write the output of the following code.

`A = [2, 4, 6, 8, 10]``L = len(A)``S = 0``for I in range(1, L, 2):``S += A[I]``print("Sum=", S)`

Question 23.

If

`d1 = {"john":40, "peter":45}``d2 = {"john":466, "peter":45}``d3 = {"john":40, "peter":45}`



What will be the output of the following?

- (i) "john" in d1
- (ii) d1 == d2
- (iii) d1 > d2
- (iv) d1 == d3

OR

Given a list L1 = [3, 4.5, 12, 25.7, [2, 1, 0, 5], 88]

- (i) Which list slice will return [12, 25.7, [2, 1, 0, 5]]?
- (ii) Which expression will return [2, 1, 0, 5]?
- (iii) Which list slice will return [[2, 1, 0, 5]]?
- (iv) Which list slice will return [4.5, 25.7, 88]?

Question 24. What is copyright infringement?

Question 25. What is cyber bullying?

### Section C

[Each question carries 3 marks]

Question 26. What are language translators? What are its types? [3]

Question 27. What is the difference between a list and tuple? [3]

Question 28. Write the output of the given Python code. [3]

```
s.tr = "This is a form of online harassment."
```

```
str1 = "is"
```

- (i) print (str.rfind ("is" )
- (ii) print (str.rfind (str1, 0,10))
- (iii) print (str.rfind (str1, 10, 0))
- (iv) print (str .find(str1) )
- (v) print (str.find(str1, 0,10))
- (vi) print (str .find (str1, 10, 0))

Question 29. What do you mean by packing and unpacking of tuples? Illustrate the answer with an example.

OR

What are the characteristics of Python Dictionaries ?

Question 30. Write two ways in which a VIRUS affects a computer system, and one way how spyware attacks.

### Section D

[Each question carries 4 marks]

Question 31. What measures should one take to maintain confidentiality of personal information?

Question 32. Write the output of the following: ‘

```
import math
```

- a. print (math, cell (35.7) )
- b. print(math.cell(-98.9))
- c. print(math.sqrt(math.cell(63.01)))

d. `print(math.pow(9,math.sqrt(4)))`  
e. `print(math.pow(10,-2))`  
f. `print(math.sqrt(81))`  
g. `print(math.pow (4, -2))`  
h. `print(math.pow(math.sqrt(100),math.cell(-3, 96)))`

**Section E****[Each question carries 5 marks]**

Question 33. Write a python program to encrypt a string as per the following rules: [5]

- Replace vowels with
- Change the case of consonant, i.e. b->B and vice-versa
- Replace any no. by n '\*'s if its odd or n '#s if even, where n is the no.

Question 34.

- What could be the possible range of output for a and b: [5]

**import random****import math****a= random.random()\*6****b= math.ceil(random.random()\*6 + 20)**

- Write a program to print the following pattern for n rows, where n is user-input:

For n=5:

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

```

OR

- Predict the output:

j=12

c=9

while(j):

if (j&gt;5) :

c=c+j-2

j=j-1

else

break



```
print(j, c)
```

```
print(c)
```

(ii) What will be the output produced by following code fragments?

```
x = "hello world"
```

(a) print (x[:2], x[:-2], x[-2:])

(b) print (x[6], x[2:4])

(c) print (x [ 2 : -3], x [ -4 :-2 ])

Question 35. Write a program to print the following pattern: [3]

```
@ * *
```

```
# @ *
```

```
## @
```

OR

```
#####
```

```
#####
```

```
# * @ * #
```

```
#####
```

```
#####
```