

**Computer Science**  
**Class XI**  
**Final Exam -2021**

**Time: 3 Hours**

**Max. Marks: 70**

1. What is Software? Explain different types of Software. (3)
2. What is Computer Memory? (2)
3. What are Trojans, Adware and Malwares? (3)
4. Convert the following. 1×10 =10
  - a.  $(54)_8$       **101100**      ( )<sub>2</sub>
  - b.  $(78)_{16}$       **1111000**      ( )<sub>2</sub>
  - c.  $(010110011)_2$       **B3**      ( )<sub>16</sub>      Use direct method.
  - d.  $(7B)_{16}$       **123**      ( )<sub>10</sub>
  - e.  $(10110001)_2$       **177**      ( )<sub>10</sub>
  - f.  $(11100101011)_2$       **3453**      ( )<sub>8</sub>
  - g.  $(125)_8$       **1010101**      ( )<sub>2</sub>
  - h.  $(11011100010)_2$       **6E2**      ( )<sub>16</sub>      Use Indirect method.
  - i.  $(44)_{10}$       **2C**      ( )<sub>16</sub>
  - j.  $(1001010101)_2$       **1125**      ( )<sub>8</sub>      Use Indirect method

5. What will be the output of the following code : (3)

```
a = 3+5/8
b= int(3+5/8)
c = 33//5
d=33%5

print (a,b, c, d) -> 3.625, 3, 6, 3
```

6. Write a program that reads a string and checks whether it is a palindrome string or not. (4)

7. What will be the output produced by the following code fragment :

(i)      name = " ajay" (2)

        age= 19

        print (name, "Hello")

        print ("You will be" , age +2 , "after 2 years")

**ajay Hello**

**You will be 21 after 2 years**

(ii)      i = 1 (2)

        while i < 10:

            print(i)

            i += 2

1

3

5

7

9

8. What do you mean by Phishing? (3)
9. Write a program to compute  $X^n$ , for two given integers X and n. (4)

10. Write a program to generate Fibonacci Series (4)
11. What are ASCII codes? Why we need them (3)
12. Write a program to find whether given number is Prime number or not? (4)
13. What is Cyber Law? Why is it important (3)

14. Write programs using nested loops to produce the following patterns: (4)

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

15. Write a program to find third largest number from the list (4)
14. How tuples differ from list? Explain with example. (3)
15. What are the most common rules to be followed while using Social Media? (3)
16. Write a program in Python :
- to sort a list of elements using insertion sort. (3)
  - To search for an element in a given list of numbers. (3)

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*Best of Luck*