

ST.JOSEPH CALASANZ CBSE SCHOOL, KANYAKUMARI

SEMESTER I, - 2019-2020

COMPUTER SCIENCE

CLASS : XI

Max Marks: 70

TIME: 3 hrs

- All the questions are compulsory
- The paper have four sections Section A, Section B, Section C, Section D
 - Section A has 14 questions carrying 1 marks each
 - Section B has 15 questions carrying 2 marks each.
 - Section C has 6 questions carrying 3 marks each.
 - Section D has 2 questions carrying 6 marks each.

Section- A (1 x 15=15)

1. What are the Boolean numbers in python?
2. Which one of the following is not a python's predefined data type
a) Int b) Tuple c) complex d) Class
3. Draw the logic circuit from the following expression $AB+A'C$
4. What is the value of X is
 $X=\text{int}(43.55+2/2)$
a) 23 b) 22 c) 44 d) 43
5. Name the function that tells the data type of an object.
6. Write a python statement to assign the values " Periodic Test", " CS", "XI" to Variables
Exam, sub, clss
7. Name any 2 devices that run on mobile OS.
8. What are the three types of Language Processor.
9. Proof $x + xy = x$
10. What is the value of the expression $4+2**5//10$
a) 1233 b) 7 c) 9 d) 45
11. What is an atom? What is an expression?
12. If you give the following for `str1="Hello"` why does python report error `str1[2]='p'`
13. Find out the output
a) 13 & 12 b) ~8
14. `a=True`
`b=False`

c=False

If a or b and c:

Print("hello")

else:

Print("hai")

15. Find out the error and rectify it

X,Y=3

Z=x+y

Print(the value of z is z)

Section- B (15 x 2 = 30)

16. Write a program to check whether entered Integer is EVEN OR ODD.

17. Convert the Following as Directed

(i) $(53.25)_{10} = ()_2$ (ii) $(A4)_{16} = ()_8$

18. Name the law and verify it using a truth table:- $A+BC=(A+B)(A+C)$

19. Write python program to calculate area of circle. The radius being the input.

20. Identify the type of Token:

i) D_o_j ii) True

ii) * iv) @

21. Write an appropriate for loop to be repeated 100 times, except the loop is to be terminated if the value of the variable P becomes 50.

22. Name the error and error message:

i) answer="Hello"+1

ii) while True

print("Hello World")

23. Differentiate between /,/,% with suitable example?

24. Find out the output

for i in range(2):

print(i)

for i in range(4,6):

print(i)

25. Differentiate between Tuple and List with suitable examples

26. Draw the AND-OR circuit for $y=AB'C'D'+ABC'D'+ABCD$

27. Define Disk fragmentor?

28. Write short notes about cloud computing?
29. Write a python program to read a c n and compute n+nn+nnn (Let us assume n=3)
30. Write a short notes about advantages of python?

Section- C (5x 3=15)

31. Find the output for the following:

```
i) for x in range(10,20):
    if( x % 2==0):
        continue
    print(x)
```

```
ii) x=20
x=x+5
x=x-10
print (x)
x,y=x-1, 50
print(x,y)
```

32. Write the following expressions using operators used in Python:

i) $x = a^3 + b^3 + c^3$

(ii) $A = \pi r(r+h)^2$

(iii) $x = (-b \pm \sqrt{b^2 - 4ac}) / 2a$

33. State the DeMorgan's law(any one) and prove it (Algebraic Expression & Truth table)
34. Leela has 3 children . She bought 12 apples from market. She gave 5 apples to first son, 4 apples to second son, remaining she gave to the last son. Who got more apples find out.
35. Explain briefly about Basic computer Organization

Section- D (2 x 5 =10)

36. Write a python program to generate the numbers (1 to 30) , then the program calculate and display the sum of odd numbers and even numbers respectively.

e.g. if the user gives the following sequence of numbers:

ex: 1 2 3 4 5 6 7 8 9 10

Then the output should be as follows:

The Sum of even numbers in given input sequence = 25

The Sum of odd numbers in given input sequence = 38

37. a) Get any 2 digit positive number from user(ex:25). Print the Reverse number Check the Reverse number is Palindrome or not?(3)
- b) Find out the factorial value of given number "n".(Get the n value read from the user). If the given number is less than 0 then Print the words "We can't find out the factorial of negative number.(2)