

11<sup>th</sup> Computer science

Time : 3.00 hrs

Marks : 70

## PART – A

Choose the best answer:

15x=15

- Expand POST
  - Post on self Test
  - Power on Software Test
  - Power on Self Test
  - Power on Self Text
- Which refers to the number of bits processed computer's CPU?
  - Byte
  - Nibble
  - Word Length
  - Bit
- $A + A = \dots\dots\dots$ 
  - A
  - 0
  - 1
  - A'
- How many bits constitute a word?
  - 8
  - 16
  - 32
  - determined by the processor
- Interactive operating system provides.....
  - GUI
  - Data distribution
  - Security management
  - Real time processing
- The shortcut key used to rename a file in window?
  - F1
  - F2
  - F5
  - F10
- If  $0 < i$  before the assignment  $i := i - 1$  after the assignment, we can conclude that.....
  - $0 \leq i$
  - $0 < i$
  - $i = 0$
  - $0 \geq i$
- Suppose  $u, v = 10, 5$  before the assignment. What are the values of  $u$  and  $v$  after the sequence of assignments? 1.  $u := v$  2.  $v := u$ 
  - $u, v = 5, 5$
  - $u, v = 5, 10$
  - $u, v = 10, 5$
  - $u, v = 10, 10$
- Using the recursive definition
 
$$\begin{cases} 1 & \text{if } n = 0 \\ a \times a^{n-1} & \text{otherwise} \end{cases}$$
 How many multiple are needed a calculate  $a^{10}$ ?
  - 11
  - 10
  - 9
  - 8
- Who coined C++?
  - Rick Mascitti
  - Rick Bjarne
  - Bill Gates
  - Dennis Ritchie
- This can be used as alternate to endl command.....
  - \t
  - \b
  - \0
  - \n
- The multi way branch statement .....
  - if
  - if-else
  - switch
  - for
- The shortcut key is used to paste the cut file or folder is.....
  - Ctrl + V
  - Ctrl + P
  - Alt + P
  - Shift + V

14.  $(10100110)_2 = ( )_{16}$

- a. A5                      b. B5                      c. A6                      d. B6

15. The decimal value of  $1010.01_2$  is .....

- a. 10.5                      b. 10.25                      c. 10.05                      d. 10.025

### PART – B

**Answer the any 6 in the following questions**

**6x2=12**

**Q.No : 22 is compulsory**

16. What is a computer?
17. Write the associative laws.
18. What is HDMI?
19. What are the security management features available in operating system?
20. Differentiate files and folders.
21. Distinguish between an algorithm and a process.
22. Draw a flowchart for conditional statement.
23. What is recursive problem solving?
24. What is meant by a token? Name the token available in C++.

### PART – C

**Answer the any 6 in the following questions**

**6x3=18**

**Q.No : 25 is compulsory**

25. Add : a)  $-22_{10} + 15_{10}$                       b)  $20_{10} + 25_{10}$
26. Differentiate CD and DVD.
27. What are the different operating systems used in computer?
28. What do you mean by recycle bin?
29. What is abstraction?
30. What is case analysis?
31. King Vikramaditya has two swords. With one, he can cut off 19 heads of a dragon. But after that dragon grows 13 heads. With the other sword, he can cut off 7 heads, but 22 new heads from. If all heads are cut off, the dragon dies. If the dragon had originally 1000 heads, can it ever die?
32. What is the difference between “Run time error” and “Syntax Error”?
33. Write the syntax and purpose of switch statement.

### PART – D

**Answer the following:**

**5x5=25**

34. Explain the basic components of a computer with a neat diagram.

**(OR)**

Explain the derived gates with expression and truth table.

35. Explain the characteristics of a Microprocessor.

**(OR)**

Explain the process management algorithms in Operating systems.

36. Explain how will you find a file or folder in Windows.

**(OR)**

Initially Farmer, goat, grass, wolf = L, L, L, L and the farmer crosses the river with goat.  
Model the action with an assignment statement.

37. Explain the types of symbols used in flowchart in detail.

**(OR)**

Write about binary operators used in C++.

38. Write a programs to find sum of the series.

**(OR)**

Write the output of the following program:

```
#include <iostream>
using namespace std;
int main()
{
int num;
cout << "\n Enter week day number: ";
cin >> num;
switch (num)
{
case 1 : cout << "\n Sunday"; break;
case 2 : cout << "\n Monday"; break;
case 3 : cout << "\n Tuesday"; break;
case 4 : cout << "\n Wednesday"; break;
case 5 : cout << "\n Thursday"; break;
case 6 : cout << "\n Friday"; break;
case 7 : cout << "\n Saturday"; break;
default: cout << "\n Wrong input....";
}
}
```

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