

**Class : 11**Register  
Number**COMMON HALF YEARLY EXAMINATION - 2024 - 25****COMPUTER SCIENCE**

[Max. Marks : 70]

Time Allowed : 3.00 Hours]

YouTube/ Akwa Academy

Instructions : (1) Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.

(2) Use Blue or Black ink to write and underline and pencil to draw diagrams.

**PART - I**

15X1 = 15

Note : i) Answer All the questions.

ii) Choose the most appropriate answer from the given four alternatives and write the corresponding answer.

- Expand POST.  
(a) Post on Self Test (b) Power on Software Test  
(c) Power on Self Test (d) Power on Self Text
- How many characters can be handled in Binary Coded Decimal System?  
(a) 64 (b) 255 (c) 256 (d) 128
- Which is the fastest memory?  
(a) Hard disk (b) Main memory (c) Cache memory (d) Blue-Ray disc
- Operating system is a  
(a) Application Software (b) Hardware (c) System Software (d) Component
- The shortcut key used to rename a file in windows  
(a) F2 (b) F4 (c) F5 (d) F6
- If  $i = 5$  before the assignment  $i := i - 1$  after the assignment, the value of  $i$  is  
(a) 5 (b) 2 (c) 3 (d) 4
- How many times the loop is iterated?  $i := 0$  while  $i < 5$   $i := i + 1$   
(a) 4 (b) 5 (c) 6 (d) 0
- Which of the following operator is extraction operator in C++?  
(a)  $>>$  (b)  $<<$  (c)  $<<$  (d)  $\wedge\wedge$
- This can be used as alternate to endl command:  
(a)  $\backslash t$  (b)  $\backslash b$  (c)  $\backslash 0$  (d)  $\backslash n$
- Which of the following is the exit control loop?  
(a) for (b) while (c) do...while (d) if...else
- Which of the following is a properly defined structure?  
(a) struct {int num;} (b) struct sum {int num;} (c) struct sum int sum; (d) struct sum {int num;};
- FORTRAN and COBOL belong to which programming category?  
(a) Object Oriented Programming (b) Procedural programming  
(c) Modular programming (d) Structural programming
- void dispchar(char ch, int size=10)  
{  
  for(int i=1;i<=size;i++)  
  cout<<ch;  
}

How will you invoke the function dispchar() for the following input?  
To print \$ for 10 times.

- Which class is power packed in inheritance?  
(a) Base class (b) derived class (c) Both (a) & (b) (d) Neither
- Which one of the following tracks a user visits a website?  
(a) cookies (b) spyware (c) worms (d) Trojans

**PART - II**

6x2=12

II. Answer any six questions. Question No. 24 is compulsory.

- Differentiate input and output unit.
- Convert  $(44)_{10}$  into Binary number.
- What are the different operating systems used in computer?
- Define a loop invariant.
- What is meant by type conversion?
- Write the use of setw() format manipulation.
- Define Polymorphism?
- What is Booting?
- Identify the error in the following structure definition.

```
struct employee
{
  in teno;
  charename[20];
  char dept;
} Employee e1,e2;
```

TPR/11/C.S/1

## PART - III

III. Answer any six questions. Question No. 33 is compulsory.

6x3=18

25. Write a short note on ISCII.
26. State the De Morgan's Laws.
27. List down the classifications of microprocessors based on the instruction set.
28. What is a flowchart? Write the disadvantages of flow chart?
29. Differentiate "=" and "=="
30. What are Built-in functions?
31. What is the format of the specification of an algorithm?
32. Write the disadvantages of OOP.
33. Convert the following if-else to a single conditional statement:

```
if (x >= 10)
    a = m + 5;
else
    a = m;
```

## PART - IV

IV. Answer all the questions.

5x5=25

34. a) Find 1's Complement and 2's Complement for the following Decimal number
  - i) -98
  - ii) -135
 (OR)
35. a) Discuss the various generations of computers.
36. a) Explain the process management algorithms in Operating System.(OR)
37. a) What are the types of Errors?
36. a) What is an entry control loop? Explain any one of the entry-controlled loops with suitable example.(OR)
- b) Explain scope of variable with example.
37. a) Debug the error in the following program.

Output:

```
-----
15
14
13
-----
```

Program:

```
#include<iostream.h>
#include<conio.h>
Class A
{
    public;
    int a1,a2;a3;
    Void getdata[ ]
    {
        a1 = 15;
        a2 = 13; a3 = 13;}}
```

```
Class B :: public A()
{
    PUBLIC
    voidfunc()
    {
        int b1:b2:b3;
        A::getdata[ ];
        b1 =a1 ; b2 =a2;
        b3=a3;
        cout<<b1<<"\t"<<b2<<"\t"<<b3;}}
void main()
{
    clrscr()
    B der;
    der1:func();
    getch();}
```

(OR)

- b) Explain briefly the basic concepts of OOP.
38. a) Write the output of the following..[YouTube/ Akwa Academy](https://www.youtube.com/channel/UCkwaAcademy)

```
#include<iostream>
using namespace std;
class student
{
    int rno, marks;
    public:
    student(int r,int m)
    { cout<<"Constructor " <<endl;
      rno=r;
      marks=m;
    }
    void printdet()
    {
        marks=marks+30;
        cout<<"Name: Bharathi"<<endl;
        cout<<"Roll no : " <<rno<<"\n";
        cout<<"Marks : " <<marks<<endl;}
```

```
}
int main()
{
    student s(14,70);
    s.printdet();

    cout<< "Back to Main";
    return 0;
}
```

(OR)

- b) Mention the differences between constructor and destructor.

TPR/11/C.S/2