

This Question Paper consists of 6 questions and 8 printed pages.

Sl. No.

Roll No.

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Code No. **58/OSS/1**

Set

C

COMPUTER SCIENCE
(330)

Day and Date of Examination

Signature of Invigilators 1.

2.

General Instructions :

1. Candidate must write his/her Roll Number on the first page of the Question Paper.
2. Please check the Question Paper to verify that the total pages and total number of questions contained in the Question Paper are the same as those printed on the top of the first page. Also check to see that the questions are in sequential order.
3. Making any identification mark in the Answer-Book or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
4. Write your Question Paper Code No. **58 /OSS/ 1, Set - C** on the Answer-Book.

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[Contd.....

COMPUTER SCIENCE (330)

Time : 3 Hours]

[Maximum Marks : 60

Note : (i) Answer **all** questions.

(ii) Marks allotted to each question are given in the right-hand margin.

(iii) Use C++ programming language to answer the programming questions.

1. Define the following :

[1 × 4 = 4]

- a) Telnet
- b) Topology
- c) Sorting
- d) www

2. a) Distinguish between the following.

[2 × 3 = 6]

- i) Compiler and interpreter
- ii) Shell Connection and TCP/IP Connection
- iii) 3 GLs & 4 GLs

b) Explain any three characteristics of JAVA.

[3]

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[Contd.....

c) Name the two types of access that you can give the users for sharing files and printers attached to your Computer. [1]

d) Name the protocol that is used to upload and download files on a network. [1]

3. a) Explain the following terms with example from C++. [2 × 2 = 4]

i) Abstraction

ii) Polymorphism

b) Name the header files to which following built-in functions belong. [1 × 2 = 2]

i) gets()

ii) tolower()

c) Which of the following identifiers cannot be used for naming variable, constants or functions in a program:

Profit_Loss_Value, MAIN, Char, While. [1]

d) Write a program to accept a number n and print the following series 4, 16, 36, 64 n². [3]

e) Give one difference between Implicit and Explicit Type Conversion. Give one example of each to support your answer. [2]

4. a) Consider an integer variable num. Write a C++ statement using conditional operator to display "ODD" if the number is odd and "EVEN" otherwise. [1]



b) Write the output of the following program :

[3]

```
#include<iostream.h>
void main()
{
    static int i = 5;
    if (i > 0)
    {
        cout << i--;
        main();
    }
}
```

c) Write a program VERIFY() in C++ which accepts a character as an argument and checks whether it is a digit or not. [3]

d) Find the syntax error from the following program. Justify each error. [2]

```
#include<iostream.h>
void exam(float a2)
{
    cout << 'The argument is'<<a2;
}
void main()
{
    float a1 = 11.0;
    exam(a2);
}
```

e) What is the difference between || and && operators. Give example in support of your answer. [2]



5. a) Define a class 'World Cup' with the following specifications : [3]

Private members :

Match - ID Numeric

Venue String

Date String

Team 1 String

Team 2 String

Public members :

- A constructor that initializes all numeric members with '0' and all strings with "ABC".
- Accept() _ that accepts the entire data.
- Display() _ that displays the entire data.

b) Predict the output of the following program : [2]

```
#include<iostream.h>
```

```
int main(void)
```

```
{
```

```
int i = 123;
```

```
while(i!=97)
```

```
    i--;
```

```
while(i > 65)
```

```
    i- -;
```

```
Printf("%c",i)
```

```
return 0;
```

```
}
```

c) Write a program to find the largest number in an integer array of size 10. [4]



- d) Consider the following class definition and answer the questions that follow : [3]

Class Library

```
{  
    int Book_ID;  
    protected :  
        char author [6];  
        char date of issue [8];  
    public :  
        void accept ();  
        void display ();  
};
```

Class Magazine : protected Library

```
{  
    char name [10];  
    public : float price ;  
        void inputdata ();  
        void outputdata();  
};
```

- i) Name the base class and the derived class.
- ii) Which all data members are accessible from inputdata ()?
- iii) Name the member functions which are accessible from the object of class Magazine.



6. a) Declare a structure ADDRESS having House No (int), Locality (string), Street(string) and City (string) as its members. Thereafter create another structure ADMISSION having the following members :

Adm _ No of type integer

Name of type string

Category of type string

S_address an instance of ADDRESS

Write a C++ statement to accept the value of locality from the user. [2]

- b) Which statement is used to create an alias of a datatype. [1]

- c) Assuming the class HOSPITAL defined below, write a user defined function to read the objects of HOSPITAL from binary file Hospi. dat and display the records of only 'Surgical' dept. [3]

Class HOSPITAL

```
{
    int Patient = Id;
    char Patient _ Name [13];
    char OPD _ Date [10];
    float fees;
    char Dept [20];
Public : void enter.data()
{
    cin>>Patient _ Id;
    gets(Patient _ name);
    gets(OPD _ Date);
    cin>>fees;
    gets(Dept);
}
```



```

void showdata ()
{
    cout<<patient_Id<<patient
        _Name<<OPD_Date<<
        fees<<Dept;
}
char[] getdept()
{
    return Dept;
}
}: // end HOSPITAL

```

- d) Explain the two methods to open a data file in C++; [2]
- e) Give a C++ statement to do the following : [2]
- i) Create an integer pointer ptr.
 - ii) Make pointer hold the address of the integer variable var.

▽▽▽▽

