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

Sl. No.

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

Set B

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 - B** on the Answer-Book.

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.

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1. Define the following : **[1 × 4 = 4]**

a) Teleconferencing

b) Sorting

c) Telnet

d) www

2. a) Can FTP Server be connected if there is no account of mine in it? What will be the login name? **[1]**

b) Explain three data Transmission model. **[3]**

c) Distinguish the following : **[2 × 3 = 6]**

i) MICR and OMR

ii) Logical & Physical Records

iii) Shell Connection & TCP-IP Connection

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

3. a) Which of the following identifiers can't be used for naming variable, constants or function in a program : Hello_Sir, CP+SP, For, INCLUDE, default. **[1]**

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

i) getchar()

ii) strcat ()

c) Contrast Implicit & Explicit Type conversion. Give Example. **[2]**

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

i) Encapsulation

ii) Polymorphism

e) Write a program to accept a number and print maximum and minimum digit in that number. **[3]**

4. a) What is the difference between '=' and '==' operator. Give example in support of your answer. **[2]**

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

```
void exam(float a2)
{
    cout<< 'The argument is'<<a2;
}
void main( )
{
    float a1 = 11.0;
    exam(a2);
}
```

c) Assume an integer variable num. Write a C++ statement using conditional operator to display 'ODD' if num is odd and "EVEN" otherwise. **[1]**

d) Write the output of the following program : **[3]**

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

e) Write a function VERIFY () in C++ which accepts a character as an argument and checks whether it is a digit or not? **[3]**

5. a) Write a program to find the smallest number in an integer array of size 15. **[4]**

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

```
# include<iostream.h>
int main (void)
{
    int  i = 122;
    while (i! = 97)
        i--;
    while (i > 65)
       i--;
    printf ("% c", i);
    return 0;
}
```

c) Define a class 'WORLD CUP' with the following specification : **[3]**

Private members:

MATCH_ID	Numeric
Venue	String
Date	String
Team1	String
Team2	String

Public members:

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

d) Consider the following class definition and answer the question that follow : **[3]**

```
Class  Toys
{
        char toy_type[10];
        protected:
            float price;
            void cal_price(float);
        public:
            Toys();
            char choice;
            void toyinput();
            void toyshow();
};
class  MyToys:Protected  Toys
{
    char mtoy_name[10];
    float weight;
    protected :
            int no_wheels;
        public :
            void my_Input();
}
```

i) Which type of inheritance is shown in the above example?

ii) Which all data members are accessible from MyInput( )?

iii) Name the member functions which are accessible from the object of class MyToys?

6. a) Give a C++ statements to do the following : **[2]**

i) Create an integer ptr

ii) Make ptr hold the address of integer variable var.

b) Declare a structure COMPLEX no having real part and imaginary part as its members.

Put it inside a class number and initialize its members with/without a constructor. **[2]**

c) Write a float variable to create an alias of a float variable as function. **[1]**

d) Describe two methods to open a data file in C++. **[2]**

e) Assuming the class HOSPITAL defined below, write a user defined functions to read the objects of HOSPITAL from the binary file Hospi.dat and display the records of only 'Surgical' department : **[3]**

```
class HOSPITAL
{
    int Patient_id;
    char Patient_name[13];
    char OPD_Date[10];
    float fees;
    char Dept[20];
```

```
public:
    void enterdata( )
    {
        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;
    }
};
```

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