This Question Paper consists of **6** questions and **7** printed pages.

Roll No. | | | | | | | | | | | | |

Code No. 52/ASS/4

SET A

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. **52/ASS/4, Set-A** 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 on the right-hand side.

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

1 Define the following : **1×5=5**

(a) ALU

(b) Registers

(c) Information

(d) JCL

(e) Start Button

2 Differentiate between the following : **2×5=10**

(a) LAN and WAN

(b) Shell Connection and TCP/IP Connection

(c) Ring Network and Bus Network

(d) FTP and Telnet

(e) Field and Record

3 Explain the following : **1×4=4**

(a) Data abstraction

(b) Inheritance

(c) Polymorphism

(d) Classes

4 (a) What is tokens and explain any three tokens. **5**

(b) Write a Program to accept a three digit number from the user. Print them in reverse order. Eg. If input is 731 then output should be 137. **4**

(c) Rewrite the following code using FOR Loop. **2**

```
int n=4, t=3;
while (t>=1)
{
    n=n*t;
    t --;
}
cout<<n;
```

(d) Write the output of the following program : **2**

```
#include<iostream.h>
#include<conio.h>
void main( )
{
    int t=0;
    int X[ ]={4,6,7,10,12}
    for (int i=1; i<5; i++)
    { X[i]=X[i]*2;
    t+=X [i];
    }
cout<<t; }
```

(e) Write a Program to input a 5 integers Array. Calculate and print the sum of all Even numbers stored in the Array. **4**

Eg : Input - 4,7,1,3,6

Output - Sum = 10

5 (a) Define a function CHECK( ) that takes one integer as parameter and returns the cube of the given number i.e n*n*n. **4**

(b) Write the output of the following program : **3**

```
#include<iostream.h>
#include<conio.h>
int R=10;
void display(int x, int y=4)
{
    x=x+R;
    R=R+5;
    y=y+x;
    cout<<x<<y<<R<<endl;
}
void main( )
{
    int R=5,t=2;
    cout<<R<<t<<endl;
    display(::R);
    cout<<::R<<R<<endl;
}
```

(c) Write the function of typedef statement. Define a STRUCTURE CUSTOMER using the following description : **3**

Customer ID : integer

Customer name : string of 20 characters

Customer age : integer

(d) Define a Class Ticket with the following specifications : **3**

Private members of the Class :

Ticket No : Numeric

Show Timing : a string of 15 characters

Audi No : Numeric

Charges : Float

Public members of the Class

Ticket( ) - a constructor to initialize the private members of the class

Ticket_No : 13

Show Timing : 2:30 PM

Audi_No : 2

Charges : 200.0

showdata( ) - to output the data

(e) Consider the following class declaration and answer the following question : **3**

```
Class  Vehicle
{
int  model;
char  Type  [30];
protected:
char  manufacturer[30];
public:
void  input( );
void  showdata( );
}
Class  Car   :  Public  vehicle
{
float  price;
public  :
void  getdata( );
void  putdata( );
};
```

i. Name the base class and derived class

ii. Name the function that can be accessed by the objects of class Car.

iii. Name the data members that can be accessed by the function getdata( ) of class Car.

6 (a) How is pointer different from ordinary variable ? What is the output of the following program segment ? **3**

```
#include<iostream.h>
void main( )
{
    char *st="Beautiful"
    st++;
    cout<<st<<endl;
    st+=2;
    cout<<st<<endl;
}
```

(b) What is the difference between ios::out and ios::app file nodes. **2**

(c) Write a C++ program to write 5 records into a binary file "EMP.DAT" corresponding to the following class emp. **3**

```
class emp
{
int eno;
char ename[20];
public :
void getdata( )
{ cout<<"Enter emp no";
cin>>eno;
cout<<"Enter name";
cin>>ename;  }
void putdata( )
{ cout<<"empno = "<<eno<<endl;
cout<< "Name = "<<ename<<endl; }     };
```