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INDIAN SCHOOL MUSCAT SECOND PERIODIC ASSESSMENT

COMPUTER SCIENCE

CLASS: XII

Sub. Code: 083

Time Allotted: 50 mts

15.05.2019

Max. Marks: 20

GENERAL INSTRUCTIONS:

- Answer all questions.
- Programming language is C++.
- Write programs neatly and clearly.

1. What do you mean a class and an object? 1
2. Differentiate between private, protected and public visibility modes of a class with suitable example. 2
3. What do you mean by static member function? Write an example. 2
4. Rewrite the following program after removing the syntactical error(s), if any. Underline each correction. 3

```
#include[iostream.h>
Class Admission
{ int Adno ;
  char name[25] ;
  public
  void getdata( )
  { cout<< " Enter the admission number:";
    cin>> Adno;
    cout<< "\n Enter name:" ;
    gets(name) ;
  }
  void display( )
  { cout << "Admission number : "<< Adno;
    cout<< "\nName:" <<name ;
  } } ;

void main( )
{ Admission AD;
  getdata( ).AD
  display( );
}
```

5. Find and write the output of the following C++ program code: Note: Assume all required header files are already being included in the program. 4

```
class Stock
{ long int ID;
  float Rate;
  int Date;
public:
  void Initialize( )
  {ID=1001; Rate = 200; Date = 1; }
  void RegCode( long int I, float R)
  { ID = I; Rate = R; }

  void Change( int New, int DT )
  { Rate+= New ; Date = DT; }
  void Show( )
  { cout<< "Date:"<< Date << endl ;
    cout<<< ID << "#"<< Rate << endl ;
  } };
void main( )
{ Stock A,B,C,D;
  A.Initialize( ) ; B.Inititalize( ) ; C.Initialize( ) ; D.Initialize( ) ;
  A.RegCode(1024,150) ; B.RegCode(2015,300) ; B.Change(100,29) ;
  C.Change(-20,20) ; D.Change(30,15) ; A.Show( ) ; B.Show( ) ; C.Show( ) ; D.Show( ) ;
}
```

6. Write the definition of a class RING in C++ with following description: 4

Private Members:

Rno - data member of integer type
Radius - data member of float type
Area - data member of float type
CalcArea() - Member function to calculate and assign Area as $3.14 * \text{Radius} * \text{Radius}$.

Public Members:

GetInfo() - A function to allow user to enter values of Rno and Radius. Also, this function should call CalcArea() to calculate Area.
ShowInfo() - A function to display Rno, Radius and Area.

7. Define a class BUS in C++ with following description: 4

Private Members

- A data member Busnumber of type integer
- A data member Destination of type string(25 characters)
- A data member Distance of type float
- A data member Fuel of type float
- A member function CALCFUEL() to calculate the value of Fuel as per the following criteria

Distance	Fuel
<=1000	500
more than 1000 and <=2000	1100
more than 2000	2200

Public Members

A function FEEDINFO() to allow user to enter values for Bus Number, Destination, Distance & call function CALCFUEL() to calculate the quantity of Fuel.

A function SHOWINFO() to allow user to view the content of all the data members.

End of the question paper