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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. Differentiate between private, protected and public visibility modes of a class with suitable example. 2
2. What do you mean by static member function? Write an example. 2
3. What do you mean a class and an object? 1
4. 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( ) ;
}
```

5. 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();
}
```
6. 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.
7. Write the definition of a class SQUARE in C++ with following description: 4
- Private Members:
- Sno - data member of integer type
  - Side - data member of float type
  - Area - data member of float type
  - CalcArea( ) - Member function to calculate and assign Area as side \* side
- Public Members:
- GetValues( ) - A function to allow user to enter values of Sno and Side. Also, this function should call CalcArea() to calculate Area
  - ShowArea( ) - A function to display Sno, Side and Area

**End of the Question Paper**