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**QUESTION BANK**

**SUB: COMPUTER SCIENCE(083)**

**CHAPTER 2 Classes and objects**

**2 MARKS QUESTION**

1. Rewrite the following program after removing the syntactical errors (if any). Underline each correction.

```
#include [iostream.h] class MEMBER {int  
Mno;float Fees; PUBLIC: void  
Register(){cin>>Mno>>Fees;} void  
Display{cout<<Mno<<" : "<<Fees<<endl;}; void  
main() {MEMBER M;  
Register();  
M.Display();}
```

**4 Marks Questions**

1. Define a class TEST in C++ with following description:

Private Members

- TestCode of type integer
- Description of type string
- NoCandidate of type integer
- CenterReqd (number of centers required) of type integer
- A member function CALCNTR() to calculate and return the number of centers as (NoCandidates/100+1)

Public Members

- A function SCHEDULE() to allow user to enter values for TestCode, Description, NoCandidate & call function CALCNTR() to calculate the number of Centres
- A function DISPTTEST() to allow user to view the content of all the data members

Define a class in C++ with following description:

Private Members

- A data member Flight number of type integer
- A data member Destination of type string
- A data member Distance of type float
- A data member Fuel of type float
- A member function CALFUEL() 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 Flight Number,

Destination, Distance & call function CALFUEL() to calculate the quantity of Fuel

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

3 Define a class Clothing in C++ with the following descriptions: Private

Members:

Code of type string

Type of type string

Size of type integer

Material of type string

Price of type float

A function Calc\_Price() which calculates and assigns the value of Price as follows:

For the value of Material as "COTTON"

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Type Price (Rs.)

TROUSER 1500

SHIRT 1200

For Material other than "COTTON" the above mentioned Price gets reduced by 25%. Public Members:

A constructor to assign initial values of Code, Type and Material with the word "NOT ASSIGNED" and Size and Price with 0.

A function Enter () to input the values of the data members Code, Type, Size and Material and invoke the CalcPrice() function.

A function Show () which displays the content of all the data members for a Clothing.

4. Define a class Travel in C++ with the description given below:

Private Members:

T\_Code of type string

No\_of\_Adults of type integer

No\_of\_Children of type integer

Distance of type integer

TotalFare of type float Public

Members:

A constructor to assign initial values as follows :

T\_Code with the word "NULL"

No\_of\_Adults as 0

No\_of\_Children as 0

Distance as 0

TotalFare as 0

A function AssignFare( ) which calculates and assigns the value of the data member TotalFare as follows :

For each Adult

Fare (Rs) For Distance (Km)

500 >=1000

300 <1000 &>=500

200 <500

For each Child the above Fare will be 50% of the Fare mentioned in the above table.

For example :

If Distance is 750, No\_of\_Adults = 3 and No\_of\_Children = 2

Then TotalFare should be calculated as

No\_of\_Adults \* 300 + No\_of\_Children \* 150 i.e.

$3 * 300 + 2 * 150 = 1200$

- A function EnterTraveK ) to input the values of the data members T\_Code, No\_of\_Adults, No\_of\_Children and Distance; and invoke the AssignFare( ) function.
- A function ShowTraveK) which displays the content of all the data members for a Travel.

5. Define a class named ADMISSION in C++ with the following descriptions:

Private members:

AD\_NO integer (Ranges 10 - 2000)

NAME Array of characters (String)

CLASS Character

FEES Float Public

Members:

- Function Read\_Data ( ) to read an object of ADMISSION type
- Function Display( ) to display the details of an object
- Function Draw\_Nos ( ) to choose 2 students randomly and display the details. Use random function to generate admission nos to match with AD\_NO.

6. Define a class named MOVIE in C++ with the following description:

Private members

HALL\_NO integer

MOVIE\_NAME Array of characters (String)

WEEK integer (Total number of weeks the same movie is shown)

WEEK\_COLLECTION Float

TOTAL\_COLLECTION Float

Public Members

- Function Read\_Data( ) to read an object of MOVIE type
- Function Display( ) to display the details of an object
- Function Update( ) to update the total collection and Weekly collection once in a week changes. Total collection will be incremented by Weekly collection and Weekly collection is made Zero