H.S.S.C. PRACTICAL EXAMINATION 20 -20

Subject:- Computer Science

Time: 3 Hours

Max. Marks: 25

Instruction:

1) Both the long and the short program should be written on the answer book supplied before typing on the computer.
2) Both the programs should be written in C++ using OOPs Concept
3) Figures to the right indicate full marks.
4) Each program should be written on a fresh page.

Q.1) Define a class named TEXT consisting of the following Members:

i) LINE: a character array of size 80 under private visibility label.

ii) Define a default constructor to accept a line of text from the user and determine the total number of consonants present in it for display.

Write a relevant main function to complete the program. (05)

H.S.C PRACTICAL EXAMINATION 2019-2020

Time : 2 ½ hours

Subject : Computer Science

Instructions:

Max Marks : 25

1. Both the long and short programs should be written on the answer book supplied before typing on the computer.
2. Both the programs should be written in C++ using OOPs concept
3. Figures to the right indicate full marks.
4. Each program should be written on fresh page.

Q. 1) Define a class name SMALL consisting of the following members:

a. list: array of type short integer size 10 under private visibility
b. N of type short unsigned integer (total no of elements to be accepted in the array.
c. Define a default constructor to accept the data member N and to accept the elements in the array list. It further calls the member function show() followed by the process() which determines sum of all even numbers in array.
d. Show() funciton to displya the contents in the array.

Write a relevant main function to complete the program. (5)

Q. 2) Define a class named SELECT consisting of the following members. (11)

17. Define a class named Publisher in C++ with the following descriptions :

Private members :

Id	long
title	40 char
author	40 char
price, stockqty	double
stockvalue	double
valcal()	A function to find price*stockqty with double as return type

Public members :

- A constructor function to initialize price, stockqty and stockvalue as 0
- Enter() function to input the idnumber, title and author
- Takestock() function to increment stockqty by N(where N is passed as argument to this function) and call the function valcal() to update the stockvalue().
- sale() function to decrease the stockqty by N (where N is sale quantity passed to this function a argument) and also call the function valcal() to update the stockvalue, outdata() function to displ all the data members on the screen.

Self Test

29. **Define a class Garments in C++ with the following specifications :**

Private Members :

GCode	of type string
GType	of type string
GSize	of type integer
GFabric	of type string
GPrice	of type float

A function Assign( ) which calculates and assigns the value of GPrice as follows:

For the value of GFabric as "COTTON"

GType	GPrice (Rs)
TROUSER	1300
SHIRT	1100

For Fabric other than "COTTON" the above mentioned GPrice gets reduced by 10%.

Public Members :

A constructor to assign initial values of GCode, GType, GFabric with the word "NOT ALLOTTED" and GSize & GPrice with 0.

A function input( ) to input the values of the data members GCode, GType, GSize and GFabric and invoke the Assign( ) function.

A Function Display( ) which displays the content of all the data members for a Garment.

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

Private Members :

(a) TestCode of type integer

(b) Description of type string

(c) NoCandidate of type integer

(d) CenterReqd (number of centers required) of type integer

(e) 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 DISPTEST() to allow user to view the content of all the data members.

}
};

Define a class applicant in C++ with the following description :

Private Members :

- A data member ANo (Admission Number) of type long
- A data member Name of type string
- A data member Agg (Aggregate Marks) of type float
- A data member Grade of type char
- A member function Grade Me() to find Grade as per the Aggregate Marks obtained by a student. Equivalent Aggregate Marks range and the respective Grades are shown as follows:

Aggregate Marks	Grade
>=80	A
less than 80 and >=65	B
less than 65 and >=50	C
less than 50	D

Public Members :

- A function ENTER() to allow user to enter values for ANo, Name, Agg and call function GradeMe(to find the Grade.
- A function RESULT() to allow user to view the content of all the data members.