

HIGHER SECONDARY MODEL EXAMINATION MARCH – 2012

Computer science

HSE II

Time: 2 Hrs
Score: 60

1. Identify the errors in the following
`int population=78000` (Score1)
2. You have seen a flask. When you put some ice cubes in it, it will stay there for hours without melting and when you pour some hot water, it will stay hot.
(a) Name the OOP features that we can correlate with this situation
(b) Write a short note about the feature (Score 3)
3. Find out the error in the following code and correct it
`Struct first`
`{`
`int mark1,mark2;`
`}` (Score 2)
4. A.....is a non member function that is granted access to class's private and protected members. (Score 1)
5. The feature used in C++ to protect data from outside world is..... (Score 1)
6. Identify the errors in the following program. Correct it and predict the output

```
class abc
{
int rollno;
float marks;
void initialize( )
{
rollno=10;
marks=500;
}
void print( )
{
cout<<"rollno="<<rollno;
}
};
void main( )
{
pupil stud;
stud.initialize( );
stud.print( );
}
```

7. Predict the output of the following program and explain
`int age=15;`
`class data`
`{`
`int age;`
`public:`

(Score 5)

```

void init( )
{
age=20;
}
Void show ( )
{
cout<<"age="<<age;
}
cout<<"age="<<age;
}
};
void main( )
{
student s;
sinit( );
s.show( );
}

```

(Score 3)

8. Predict the output of the following C++ program

```

class sample
{
private:
int a;
float b;
public:
ABC( int x=1,float y=0.0)
{
a=x;
b=y;
}
void print( )
{
cout<<a<<b;
}
};
void main()
{
sample ob1();
sample ob2(3);
sample ob3(2,1.5);
ob1.print( );
ob2.print( );
ob3.print( );
}

```

(Score 5)

OR


```
p=&a; cout<<a;
cout <<*p;
cout<<*(&a);
```

 (Score 3)

14. Consider the following C++ statements
Ofstream outfile (“stud.dat” ,ios::app);
Ofstream outfile (“stud.dat” ,ios::ate);
(a) How do the above statements differ from each other
(b) Name the base class in which the keywords ‘ate’ and ‘app’ are defined. (Score 3)

15. is used as an interface between the program and file. (Score 1)

16. State and prove De Morgan’s theorem algebraically. (Score 5)

17. Choose the odd one out
(a) UNIQUE (b) PRIMARY KEY (c) DISTINCT (d) NOT NULL (Score 1)

18. Discuss the tools required for system analysis and design. (Score 3)

19. Explain the aspects to be considered while conducting feasibility study in system development life cycle. (Score 3)

20. is the ability to modify a schema definition in one level without affecting the schema definition in next higher level. (Score 1)

21. What are the data models used for the design and implementation of DBMS?
If you assigned to prepare a database for a department store, which data model you will select? Why? (Score 5)

OR

22. A table is to be created to store the details of batsman. The detail consists of Player code, Name, No. of matches, Total runs, No. of centuries, and Highest score. Write SQL statements for the following.
(a) To create the table with Player code as primary key.
(b) To insert the details of a batsman.
(c) To display the name of those batsmen whose total score is 10000 or more?
(d) To find the number of batsmen who scored 10 or more centuries.
(e) To display the details of those batsmen who scored 10000 or more runs. (Score 5)

23. A class containing another class is called (Score 1)

24. Which among the following modes of transmission is the fastest? Justify.
(a) Serial Communication? (b) Parallel communication. (Score 2)

25. The following are examples of three types of data transmission. Identify each one and explain the mode of transmission in each case.
(a) Walkie –Talkie (b) Telephone (c) Radio (Score 3)

26. What is inline function? Explain the working and advantages. (Score 2)

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