HIGHER SECONDARY MODEL EXAMINATION 2012

HSE II   **Computer Science**

Time:2hrs   Max. Score:60

1. Name the header file for function exit() (1)

2. Which of the following is not homogeneous collection? (1)

   a) Array   b) Enum   c) Structure   d) None of these

3. Which of the following is not advantage of OOP? (1)

   a) Code re-usability   b) Real world simulation   c) Data security   d)None of these

4. Member functions defined inside a class definition are treated as _____ functions (1)

5. A function's argument list is known as _____ (1)

6. Write down dual form of the expression $- A + B^1 C = 0$ (1)

7. Which parameter is the one that is added implicitly to every member function when it is

   invoked? (1)

8. A huge collection of online resources that users can view using a web browser is called ____ (1)

9. Which of the following protocol is responsible for reliable communication between

   computers over internet?

   a) FTP   b) HTTP   c) TCP   d) IP (1)

10. Given x=15, y=2, what will be the value of z?

    a) z=x+(y++)   b) z=x+(++y) (2)

11. A structure encloses different types of data items. Justify. How individual members are accessed?

    Explain with example. (3)

12. Evolution of programming paradigms is first Procedural, then Modular, and then Object Oriented.

    Highlight essential features of all paradigms (3)

13. Define a class Time that has three integer data members for keeping hour, minute and second

    information. The class definition should include the following member functions,

    a) a constructor to initialize all data members to zero

    b) a member function to read Time object

    c) a member function to display time in 11:59:59 format

    Write a main function to read and display a time object. (5)

14. 'Derivation is not friendship'. Justify the statement. (2)

15. Compare 'this' pointer with an ATM card (2)

16. Find out the error if any and correct.

```
#include <iostream.h>
void main()
{
    int a, *pa,&ra;
    a=10; pa=&a; ra=a;
    cout<<a<<*p<<ra;
}                                                                (2)
```

17. Explain different modes in which we can open a file. (3)

18. Write a C++ program to write numbers from 1 to 100 to a data file (5)

(OR)

19. Write a C++ program to read contents from a text file out.txt, count and display number of alphabets in it. (5)

20. A type of adder circuit requires one XOR gate and one AND gate for its operation.

a) Name the adder (1)

b) Draw its logic circuit (2)

c) Explain its working with the help of truth table (2)

21. Suppose you are appointed as a system analyst to develop a new system in an organization. Now it becomes essential for you to collect information from the problem environment.

a) Name the methods for recording facts (2)

b) Discuss any three in detail. (3)

22. Match the following (3)

A	B
Domain	Table
Tuple	Number of rows in a relation
Attributes	Number of columns in a relation
Cardinality	Rows in a relation
Degree	A pool of values
Relation	Column of a table

23. Write SQL statements for the following tasks. (5)

a) Create a table named STOCK with the following fields- item code, item name, quantity, unit price, date of purchase

b) List the details of items according to the ascending order of unit price

c) Display name of items with in the price range 500-1000

d) Delete the items whose date of purchase not entered

24. Even though most of our homes are connected with land-line phone connection, number of lines seen in telephone posts never matches the number of homes in that area. How can you explain this in the context of data communication (2)

25. Briefly explain any two communication media that does not use electric current as signal (4)