C++ Revision

Assignment (Th) - 1 **Submission Date: 12th June, 2018**

1. What is the difference between 'user defined data type' and 'fundamental data' type?
2. Structure is called as a user defined data type, why?
3. What are the differences between structure and array?
4. Describe the different methods used to read and write the data members of a structure?
5. Structure declaration or definition should be done globally or locally? Justify your answer.
6. Structure variable (object) declaration should be done globally or locally? Justify your answer.
7. Answer the following questions on the basis of the given code:

```
struct item {
    int I_code;
    char I_name;
    float I_price;
    int qty;
    };
```

   (a) Name the keyword used.
   (b) What is 'item'?
   (c) I-code, I-name, and I_price and qty are known as----------.

8. Define a structure with the following data members:(Assume suitable datatypes)
   Publisher Name, PublicationYear, BookName, AuthorName, and EditionNo.
   Structure variable should be able to hold information about 10 books.
9. What will be the size of the structure used in the q. no. 7 and 8 ?
10. Structure is known as a linear data structure. Why?
11. What is the difference between call by value and call by reference? Also, give a suitable C++ code to illustrate both.
12. Explain the following : Static function, Inline function, Recursive function,
13. Differentiate between local and global variable.
14. Detect and rectify errors in the following:

```
main () {
    struct student {
        char name[25]="ponting";
        int age;
        int roll 12;
    }
    cout <<name; age = 29; cout<<age; cout<<roll;
};
```

15. What are nested structures ? Give an example.
16. What are macros in C++? Explain it with an example.
17. What is the use of typedef in C++ ? Use typedef to define the types double, float and unsigned int.
18. What is wrong in following code :-

   (a) Struct (b) struct A (c) struct A

```
{                    {                    {
int x ;                  int x = 10;              int x;
char y;              char y;              B y;
};                   };                   };
```

(d)
```
struct A
{
int x ;
char y;
};
cin>>y;
```

(e)
```
struct A
{
    int x;
char name []="Rama";
cout >>name;
};
```

19. Rewrite the following programe after removing the syntactical error (s), if any

```
# include<iostream.h>
void main()
{
    struct student
    {
    char name [20];
    int roll;
    char marks = 75;
    } st;
    gets (name);
    cin>>roll;
    puts (name)
    puts (marks);
    getch();
}
```

Guess the output of above program and check it.

20. Compare and contrast:
    a. Structured programming(POP) vs OOP.
    b. Abstract class vs Concrete class.
21. Define
    a. Data Hiding
    b. Data Abstraction
    c. Encapsulation
    d. Class
    e. Object
    f. Polymorphism
    g. Inheritance
22. What is function Overloading? Give an example.
23. How is matching done in case of overloaded function?