Assignment-1:

1 What are the characteristics of c programming language?

Ans

① It is Procedural Programming language
② It is a high level programming language
③ It is native Programming language means It's communicate with operating system directly
④ It is compiled programming language
⑤ It follows a top to bottom approach
⑥ It is a case sensitive
⑦ It is statistically typed language (It supports data types)
⑧ c programming is blocked structured language ({ })

2) What is mean by identifier?

Ans: identifier represent the name in the c program, for example, variable, function, arrays, structure, union, labels etc. An identifier can be composed of letters such as upper case, lowercase letters, underscore, digits, but the starting letters should be either an alphabet (or) an underscore

3 what are the Data types available in c programing language

Ans there are Three Data types available in c Programing. hay

① Primitive Data Type
② Derived Data Types
③ user Defined Data Types

① Primitive Data Type

→ These Types which are provided by language creator & that we can use directly in our Program which is called as primitive Data Types

→ It includes void, boolean, char, int, float, ... etc

② Derived Data Types :-

The Types which are create from any other Data Type which is called has Derived Data Types

→ It includes Function, Pointer, array Reference

③ user Defined Data Types :- The data Type which are created by expanding on requirement of programmer is called user Defined Data Types

→ It includes class, union, Enum, structure

4) what are datatypes comes under user defined Data Types in c?

Ans Datatypes are
(i) union
(ii) structure
(iii) enumeration
(iv) class

5) What are the primitive datatypes in c & what are the size of primitive datatypes

Ans primitive datatypes are
void memory size 0bytes
boolean memory size 1bytes
integer memory size 4 bytes
character memory size 1bytes
float memory size 4bytes
Double memory size 8bytes

6) what is mean by data type qualifier

→ Types qualifier are keywords that can be used to change a data Types behavior in the c programing language These qualifiers can used to describe a variable (or) pointer constancy, volatility, restrictions

Types of qualifiers in C

1. Const
2. volatile (= volatile)
3. Restrict
4. _Atomic
5. _Thread_local
6. _Noreturn
7. Alignas

7) Explain the concept of Data object and it's L value, R value

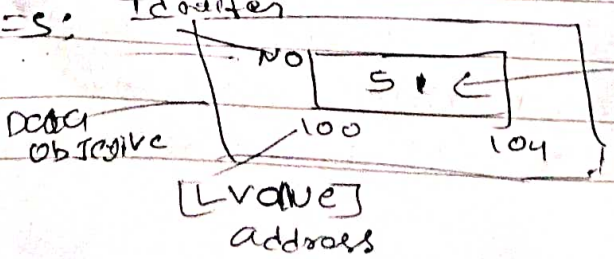
Ans:- Data object is consider as the memory location of our variable

every data object contains Two Types of values

① L value:- L stands for location of the variable location means the base address of the variable

② R value:- R stands for Rstand at our memory location. Rstand means the value initialised in our variable

Ex:- int No = 5;



08] What are types of of programing languages

Ans 3 types of Programing language
① Procedural Programing Languages
② object oriented Programing Language
③ Virtual machine Based Programing Langu

09] what is mean by datatypes modifiers

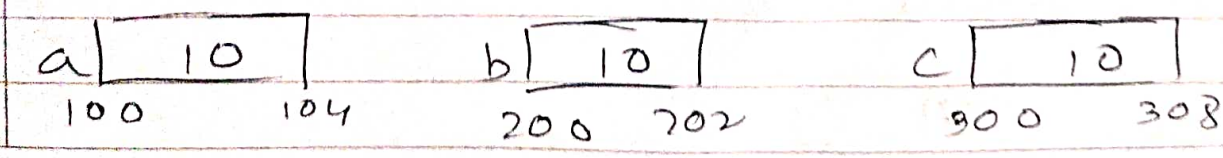
Ans Datatypes modifiers :- modifiers is consider has a key word which is used to modify existing characteristics of variables

There are Two Types of modifiers
① short and long

→ If we use short modifiers with Integer It will allocate Two bytes of memory

→ If we use long modifier with integer It will allocate 8 bytes of memory

```
int a=10 ;          // 4 bytes
short int b=10;     // 2 bytes
long int c = 10;    // 8 bytes
```



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⑨ signed & unsigned are DataType modifiers

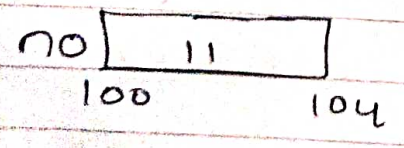
→ signed & unsigned keywords are used to specify whether we are going to store content with sign (or) without sign

Ex:- Prototypes

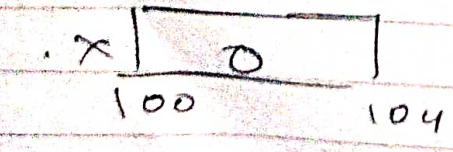
```
int a=10;
int b=-10;
unsigned int c=10;
signed int d=10;
unsigned int e=-10;
```

10] Read below statements and draw its diagrammatic layout

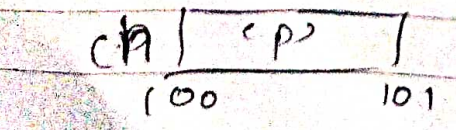
(i) int no = 11



(ii) int x



iii) char ch



iv) int arr[6];

vi) double brr[4];