

Assignment 2

Q) what is programming language?
 what are features of e programming languages?

→ Programming languages

→ note - ai word not in notes

- It is considered as language which is used to interact / communicate with the computer.
- If we want to perform any task with the help of computer then we have to interact with the computer in its language.
- programmer needs to learn programming language

e.g: C, C++, Java etc.

following are the features of c programming language

1) General purpose

2) procedural programming

- 8) Block structured programming language
 - 9) Compiled programming language
 - 10) Free flow code programming
 - 11) Statically typed
 - 12) Native programming language
 - 13) Standardized programming language
 - 14) What is mean by Data type? what are the data types available in C
- Data type

- Inside every application program we need some memory locations to store the values.
- To store the value we have to create variable
- Before creating variable we have to decide its data type.

Every programming language provides the set of data type that we can use in application.

following are the datatypes in c programming language

- 1) primitive
 - 2) Derived
 - 3) Userdefined.
- 4) what is meant by ~~user defined~~ primitive data type? list out user defined datatypes in c programming language.

→ primitive data type

- The datatype provided by language designer are called as primitive data types.
- As a programmer we can create the variable of primitive datatype directly.

There are 5 primitive datatypes in
C and they are all 8 bytes each

- 1) char = 1 byte
- 2) int = 4 bytes
- 3) float = 4 bytes
- 4) double = 8 bytes
- 5) Boolean = 1 byte (labeled as
bit in notes)

4) what is meant by user defined data type? list out user defined data type in c programming language

user defined data type

- A user defined data type in c is data type that is derived from an existing data type in program

- The user defined data types extend the primitive types that are already available in the programming

following are user defined datatypes in c programming language

1] structure

2] union

3] Enumeration

5] what is meant by identifier?

Identifier

- In C programming language identifiers are names that help recognize & identify different entities in a program such as variables, functions.
- They are used to uniquely identify an entity within the program and serve as labels to access these elements.

6] what is mean by data type qualifier?

Type Data type qualifiers are keywords that can be used to change a data type's behavior in the C programming language.

- A specified character or string of characters that immediately precedes a data field that defines the general category or intended use of the data. for e.g

Division A
Identifier

7] Explain the concept of Data object and its Lvalue, Rvalue

- when we create a variable it's considered as data object.

+ Each data object contains two things: key and value.

R-value

~~R. van
A. fushi. grouping of basic rock types
Basic country and acidic, utiles as~~

- L-value indicates its location it is considered as address of that variable in memory

- The Data store inside variable it's called as R-value (Resident value)

visualization of RAM

Percentage	200	201	202	203	204
Age	23	23	23	23	23
Space	1 byte	200	201	202	203
L-value					
R-value					

8) List out different types of programming languages with example?

- Depending on its level there are 3 types of programming language
 - i) Low-level programming language.
 - e.g.: Binary Language
 - 2) middle level programming language

for example:- Assembly language

3) High level programming language.

e.g.: C, C++, Java

9) what is mean by Data type modifiers?

The data type modifiers are used to modify length or size of data that various data types hold such as int, char, double as per requirement.

- By using these data modifier we can precisely utilize the memory.

(10) Read below code & snipped up and draw its diagrammatic layout.

char division = 'A';

int age = 20;

float marks = 67.09;

double value = 99.12345678;

bool a = true;

identifier.

Base Address
= P

division

A

variable

R-value

age

20

marks

67.09

Value

99.12345678

pre-processing
Add space

char division = 'A';