ASSIGNMENT - 1

Q1. What is a computer?

Ans. A computer is an electronic device that stores and processes data, often in binary form, in accordance with commands from a variable programme.

Q2. What is RAM?

Ans. RAM, which stands for Random access memory, is a hardware device generally located on the motherboard of a computer and acts as an internal memory of the CPU. It allows CPU store data, program, and program results when you switch on the computer.

Q3. Where is data stored in a computer?

Ans. CPU (Central processing unit)

Q4. What is that input device used to type text and members on a document in the computer system?

Ans. keyboard

Q5. What are the output devices?

Ans. Monitor, printer, etc

Q6. Which is the input device that allows a user to move the cursor or pointer on the screen?

Ans.Mouse

Q7. Which language is directly understood by the computer without a translation program?

Ans. Machine language or machine code, is a low - level language composed by a binary digits

Q8. What are the input devices ?

Ans. keyboard, mouse, joystick etc

ASSIGNMENT - 2

Q1. What is statically typed and dynamically typed programming language ?

Ans. Statically typed :- if the memory of the variable is given during the compilation time itself then such types of programming languages are called as “statically typed”.

Eg. C, C++, java.

dynamically typed :- if the memory of the variable is given during the execution time itself then such types of programming languages are called as “dynamically typed”.

Eg. python, PHP, js.

Q2. What is variable in java?

Ans. A variable is the title of a reserved region allocated in memory. In other words, it may be referred to as the name of a memory location

It is a container that holds the value while the java program is executed.

Each variable should be given a unique name to indicate the storage area.

A variable is assigned with a datatype.

* **Syntax for declaring a variable**

Type variable\_name [=value]

The variable\_name is the name of a variable we can initialise the variable of specifying an equal sign and a value (initialization i.e. assigning an initial value is optional ). However, the compiler never assigns a default value to an uninitialized local variable in java.

Q3. how to assign a value to a variable ?

Ans. we use assign operator (=) to assign a value to a variable.

For example:

number = 10;

flag = true;

name = “codepumpkin”;

We can assign a value to a variable any number of times in java, but when we assign a new value to a variable, the old value will be overwritten.

For example, in the first code snippet, we have first assigned a value 10 to the number and then modified its value by performing the number +20 operation and assigning it back to the variable number by.

Q4. What are primitive data types in java?

Ans. byte, short, int, long, float, double, char, string, boolean.

Q5. What are identifiers in java?

Ans. identifiers in java are symbolic names used for identification. They can be a class name, variable, name, method name, constant name, and more; however, in java, there are some reserved words that cannot be used as an identifier.

Q6. list the operators in java?

Ans. operators in java:

1. Arithmetic operators
2. Relational operators
3. Logical operators
4. Assignment operators
5. Unary operators
6. Bitwise operator

Q7. Explain about increment and decrement operators are given an examples

Ans. increment and decrement operators in java are used to increase or decrease the value by 1. For example, incremental operator ++ is useful to increase the existing variable value by 1 (i = i + 1). Moreover, the decrement operator -- is useful to decrease or subtract the current value by 1 (i = i - 1) the syntax of both increment and decrement operators in java programming to prefix or postfix is

Increment operators : ++x or x++

Decrement operators : --x or x–

**ASSIGNMENT - 3**

Q1. What is a programming language?

Ans. programming is a practice that strengthens our capacity for logical thought and problem - solving. It teaches us how to carry out a task with the aid of software or a computer program. So to put it simply, programming is the process of using computer language to bring a solution to a problem into practice.

Q2. Why do we need a programming language?

Ans. **Programming language:-** it is vocabulary and a collection of rules that command a computer, devices, application to work according to the written codes. The programming language enables us to write efficient programs and develop online solutions such as - mobile applications, web applications and games, etc. Programming is used to automate, maintain, assemble, measure and interpret the processing of the data and information. It helps in accelerating the input and output of the devices or applications

**Features of java-**

* Object oriented - The features of object - oriented programming are supported by java. Its object model is straightforward and flexible.
* Platform independent - because java and C++ are platform independent, application programs created in one operating system can run on any other operating system. C and C++, however, are platform dependent languages, making it impossible for application programs created in one operating system to run in any other operating system.
* Simple - because Java incorporates many C/C++ capabilities, it is simple to understand.
* Secure - Java offers a variety of defences against malware viruses. It guarantees that neither damage nor security will be compromised.
* Portable - We have the idea of portability in java. Java allows the same software to run on various platforms.
* Robust - It assists us in identifying potential errors as soon as feasible during program development.
* Multithreaded- Java’s multithreading programming capabilities enables you to create a program that executes multiple tasks concurrently.
* Distributed - Java maintains the TCP/IP protocol and is therefore suitable for distributed internet environments.

Q4. What is an object?

Ans. An object is an entity with state and behaviour, such as a chair, bike, marker, pen, table, or car. It could be intellectual or physical (Tangible or Intangible). The banking system is an illustration of an intangible entity.

Q5. What is a class?

Ans. A class is a collection of items with similar characteristics. It serves as a model or blueprint from which things can be made. It makes sense as a whole. It cannot be bodily.

Q6. What about the java main() method?

Ans. public static void main (string args[])

The main() is the starting point for JVM start execution of a java program without the main() method, JVM will not execute the program. The system of the main() method is: public: It is an access specifier. We should use a public keyword before the main() method so that JVM can identify the execution point of the program.

**Public** :- An access specifier, that is before calling the main() method, we need to use the public keyword to let the JVM know where the programme is actually being executed before the main() method, if we use private, protected and default, the JVM won’t be able to see it.

**Static** :- you can make a method static by using the keyword static. We should call the main() method without creating an object. Static methods are the method which is invoked without creating the objects, so we do not need any object to call the main() method.

**Void :-** In java, every method has the return type. Void keyword acknowledges the compiler that the main() method does not return any value.

**Main :-** It is a default signature which is predefined in the JVM. It is called by JVM to execute a program line by line and end the execution after completion of this method. We can also overload the main() method.

**String argos[]** :- The main() method also accepts some data from the user. It accepts a group of strings, which is called a string array. It is used to hold the command line arguments in the form of string values.

main(string args[])

Here, args[] is the array name, and it is of string type. It means that it can store a group of strings. Remember, this array can also store a group of members but in the form of string only. Values passed to the main() method are called arguments. These arguments are stored in to an args[] array, so the name of args[] is generally used for it.