Question 1

Object Oriented Programming

→ Object Oriented Programming is a computerized programming which designs the software using the group of data (or objects.

→ Object Oriented Programming designs the software using objects classes but not using the logics or the functions.

→ Object Oriented Programming based languages are C++ and Java.

→ Object Oriented Programming has many of the features like

i) Abstraction :- Implementation data is hidden and functionality data is represented to the user.

ii) Inheritance :- The process where the methods the new class acquire the properties and methods of superclass.

iii) Polymorphism :- The process where the methods can be used in many forms. Code is reusable in the program.

iv) Encapsulation :- The process of binding up or wraping up of the data and methods together is known as Encapsulation

Features of Java Programming Language

1. Object Object Oriented
2. Platform Independence
3. Simple
4. Secure
5. Architectural Neutral
6. Portable
7. Robust
8. Multithreading
9. Interpreted
10. High performance
11. Dynamic
12. Distributed.

1 Object Oriented

→ Java Programming language is completely based on Object Oriented concepts like Objects, classes, methods as well as abstraction, encapsulation, inheritance, polymorphism.

2 Platform Independence

→ Programming language like C, C++ are platform dependence But Java is platform Independent.
→ Java produces a bytecode using the complication, this bytecode is executable in any web browser support (JVM) Java Visual Machine
→ So Java is platform Independent

3 Java is Simple

→ As Java is based on the Object Oriented Programming concepts, If the programmers understand

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oops concept, then Java is simple

④ Secure
→ As the implementation code is hidden from the user. Only the functionality code is viewed by the user. The Java is maintaining a security to hide the most important code from the user access.

⑤ Architectural Neutral
→ Java program generates the bytecode using the complication process, this bytecode fly to the nearby machine architecture and executes the program.
→ Hence, Java is architectural neutral.

⑥ Portable
→ Since Java is architecturally neutral, the code of the Java can be easily portable to the multiple platform.

⑦ Robust
→ The Java program is designed in such a way that the code is prone to be error free, simple, portable and robust in nature.

⑧ Multithreading.
→ The Java program is designed such that the program solves multiple problems at a time.
→ This feature is called as multithreading.

⑩ Interpreted

→ Java is just interpreted by both translator and compiler to produce a bytecode which is executable in any platform.

⑩ High performance

→ As Java is simple, robust, portable, platform independence and error free the Java is best in the performance and most efficiently used program.

⑪ Dynamic

→ Java is dynamic in nature enabling all the best features for the user

⑫ Distributed

→ Java is well distributed as performed in any web browser.

| Program | Java Program |

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| Java Compiler | Compilation of the Java Program |

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| Byte Code | Intermediate code (or) byte code is produced after compilation |

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Window   Linux   Mac Executing the Java code (or) program in any of the multiple web platforms.