**15 March Assignment Theory**

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1. What is difference b/w constructor and function in the class?

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| **Constructor** | **Function** |
| Constructor is a block of code that initializes a newly created object. | Function is a group of statements that can be called at any point in the program using its name to perform a specific task. |
| Constructor has the same name as class name. | Function should have a different name than class name. |
| Constructor has no return type not even void. | Function requires a valid return type. |

1. Who gives default constructor?

The Java compiler provides a default constructor if you don't have any constructor in a class.

1. What are other responsibilities of JVM?

JVM performs byte-code interpretation, garbage collection, exception handling, thread management, initialization of variables, and type definition.

1. Is java call by reference or call by value?

Java uses only call by value while passing reference variables as well.

1. Who is providing the extra functions is java?

Built in functions in java are methods that are present in different API of JDK.

1. What happens if a final keyword is applied on variable, class and method?

* If we initialize a variable with the final keyword, then we cannot modify its value.
* If we declare a method as final, then it cannot be overridden by any subclasses.
* if we declare a class as final, we restrict the other classes to inherit or extend it.

1. Why string is passed in main method?

Because by passing String arrays, we can pass all the necessary parameters like options/arguments related to the program in the form of String easily.

1. Why only JVM gives default constructor?

JVM gives default constructor because the default constructor is used to provide default values and this is done by java compiler and the java compiler is part of JVM.

1. Difference b/w java 8 and java7?

Java 7 brings JVM support for dynamically-typed languages plus Type Interference for Generic Instance creation.

Java 8 brings the most anticipated feature for the programming language called Lambda Expressions, a new language feature which allows users to code local functions as method arguments.

1. When and why collections were added?

Java Collection Framework enables the user to perform various data manipulation operations like storing data, searching, sorting, insertion, deletion, and updating of data on the group of elements.

The collection framework was introduced in Java2 or 1.2.

1. difference b/w collection and collections?

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| **Collection** | **Collections** |
| It is an interface. | It is a utility class. |
| It is used to represent a group of individual objects as a single unit. | It defines several utility methods that are used to operate on collection. |
| The Collection is an interface that contains a static method since java8. The Interface can also contain abstract and default methods. | It contains only static methods. |

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