

**B022414(022)**

**B. Tech. (Fourth Semester) Examination,  
April-May 2022**

**(Scheme : AICTE)**

**(CSE Branch)**

**OBJECT ORIENTED PROGRAMMING (with Java)**

***Paper : (BT3020)***

***Time Allowed : Three hours***

***Maximum Marks : 100***

***Minimum Pass Marks : 35***

***Note : Attempt all questions. Part (a) of each question is compulsory carrying 4 marks. Attempt any two parts from part (b), (c) and (d) carrying 8 marks each.***

**Unit-I**

1. (a) Compare Java and C++.  
(b) Explain static and this keyword with suitable example.

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- (c) Explain the features of Java.
- (d) Define constructor. Explain types of constructor using example.

### Unit-II

- 2. (a) Differentiate between interface and abstract class.
- (b) Write a Java Program to demonstrate how packages can be created, imported and used.
- (c) Create a user defined exception class which throws exception when the user input marks greater than 100.
- (d) Differentiate between method overloading and method overriding with example.

### Unit-III

- 3. (a) Compare string and stringbuilder.
- (b) Explain the life cycle of thread. In How many ways can a thread be created in Java? Explain with example.
- (c) Define synchronization. Explain the use of synchronization method with example.

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- (d) Explain Byte streams and Character streams with suitable Java program.

### Unit-IV

- 4. (a) Write the differences between Swing and AWT components.
- (b) Write a Java Program to see the port number, protocol name of given URL.
- (c) Explain Event delegation model in Java with suitable example.
- (d) What is JDBC? Explain the types of JDBC.

### Unit-V

- 5. (a) Define HashSet and TreeSet.
- (b) Explain generic using classes and generic types in Java.
- (c) Write a program using the concept of HashMap.
- (d) Explain Hashtable classes in java with example.