



**B.Tech V Semester Regular Examinations, December 2021**

**OBJECT ORIENTED PROGRAMMING THROUGH JAVA**

*(Electronics and Communication Engineering)*

**Maximum Marks: 70**

Date: 08.02.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

**Part-A**

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Define the basic characteristics of object-oriented programming?
- 2 Differentiate between class and object?
- 3 Define a Package?
- 4 What is the significance of the CLASSPATH?
- 5 What is the difference between error and an exception?
- 6 Write the complete life cycle of a thread?
- 7 Make a comparison of List, array and ArrayList?
- 8 List out methods in Iterator.
- 9 What are the limitations of AWT?
- 10 Define an Inner classes.

**Part-B**

Answer All the following questions.

(5X10M=50Marks)

- 11 a) What is the purpose of constructor in Java programming? (5M)  
b) Write the significance of Java Virtual Machine? (5M)  
OR
- 12 a) Define inheritance. What are the benefits of inheritance? (5M)  
b) What is polymorphism? Explain different types of polymorphisms with examples? (5M)
- 13 Distinguish between Byte Stream Classes and Character Stream Classes? (10M)  
OR
- 14 Write a program to demonstrate hierarchical and multiple inheritance using interfaces? (10M)
- 15 a) What is an Exception? How is an Exception handled in JAVA? (5M)  
b) Write a java program that illustrates the application of multiple catch statements. (5M)

OR

- 16 a) Differentiate between multiprocessing and multithreading. What is to be done to implement these in a program? (5M)  
b) What are the different types of threads? How to set a thread priority? Write an example program? (5M)

- 17 Differentiate between ArrayList and a Vector? Why ArrayList is faster than Vector? Explain. (10M)

OR

- 18 What is Java Collections Framework? List out some benefits of Collections framework and explain. (10M)

- 19 Write about Mouse handling events? (10M)

OR

- 20 Define layout management and explain different types of layout managers. (10M)