

B.Tech II Year I Semester (R20) Supplementary Examinations April/May 2024

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(Common to CS&IT, IT, AI&DS, CSE(AI), CSE(AI&ML), CSE(CS), CSE, CS&D and AI&ML)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|---|----|
| (a) What is Byte Code? What is the purpose of JVM? | 2M |
| (b) Define Method Overloading. | 2M |
| (c) What is the use of Final Keyword? | 2M |
| (d) Define Interface. | 2M |
| (e) List any 3 Exceptions in Java. | 2M |
| (f) What is Serialization? | 2M |
| (g) Compare Thread and Process. | 2M |
| (h) List 5 Classes in Collections. | 2M |
| (i) How do applets differ from application program? | 2M |
| (j) Give the AWT hierarchy. | 2M |

PART – B

(Answer all the questions: 05 X 10 = 50 Marks)

- 2 Write a Java Program to accept 10 values into an Array and find the two Largest and smallest numbers from the values. 10M
- OR**
- 3 Discuss the Type of Conversions and castings supported in Java with Example programs. 10M
- 4 What is an abstract class? Explain all the cases to implement abstract class. 10M
- OR**
- 5 Write a Java program to find the factorial value of the given number using user-defined package concepts. 10M
- 6 What is Exception? Explain different kinds of Exceptions with examples. 10M
- OR**
- 7 Write a Java program to read student records (Regno, Name, Phone Number) from the console and add it to the existing student records in a file. 10M
- 8 How are threads executed by the Thread scheduler? Explain the role of the thread prioritization with relevant methods. 10M
- OR**
- 9 Write a Java program to insert the specified element at the specified position in the linked list. 10M
- 10 What is an applet? Explain the life cycle of the Applet with a neat sketch. 10M
- OR**
- 11 Write a Program to Accept a User Registration page with all required fields for a New User. 10M

B.Tech II Year I Semester (R20) Supplementary Examinations August/September 2023

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(Common to CSE (CS), IT, CSE, CSE (AI), CSE (AI&ML), AI&DS, AI&ML and CS&D)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|---|----|
| (a) Define class. Give an example. | 2M |
| (b) Name any four functions of STRING class. Give an example to each. | 2M |
| (c) Define final and what is its significance in inheritance. | 2M |
| (d) What are interfaces? Why they are required? | 2M |
| (e) Define subclass. Illustrate with example. | 2M |
| (f) Define the function to read a data from binary file. Illustrate. | 2M |
| (g) Define thread. Why is it required? | 2M |
| (h) Name any two functions used for inter-process function with an example to each. | 2M |
| (i) Define applet. Name any two functions associated with applet processing. | 2M |
| (j) Define JDBC. What is its function? | 2M |

PART – B

(Answer all the questions: 05 X 10 = 50 Marks)

- | | | |
|-----------|--|----|
| 2 | (a) What are the constructors in Java programming language? Explain. | 4M |
| | (b) Define method overloading. Develop a block of code to overload a function to add and multiple any two complex numbers. | 6M |
| OR | | |
| 3 | (a) Justify 'Java is suitable for internet programming'. | 4M |
| | (b) Discuss the different ways of passing parameters to a function. | 6M |
| 4 | (a) Define inheritance. Explain with an example, how inheritance helps in reducing code redundancy. | 5M |
| | (b) Define packages. Discuss any two functions associated with package processing. | 5M |
| OR | | |
| 5 | (a) Discuss the procedure of implementing interfaces with a suitable example. | 6M |
| | (b) What are abstract classes? Give an example highlighting its importance. | 4M |
| 6 | (a) Define exception. Illustrate exception handling mechanism with a suitable example. | 6M |
| | (b) Define file. Name the functions associated with reading data from the file and writing data to the file with an example. | 4M |
| OR | | |
| 7 | (a) Discuss the importance of multiple catch blocks with a suitable example. | 5M |
| | (b) Discuss how serialization is supported with an example. | 5M |
| 8 | (a) Define thread. Explain its life cycle. | 4M |
| | (b) Discuss the functions associated with inter-process communication with an example to each. | 6M |
| OR | | |
| 9 | (a) What are collections? Discuss any two collections with their usage. | 4M |
| | (b) Discuss the process of synchronization with a suitable example. | 6M |
| 10 | (a) Define applet. Explain its life cycle. | 4M |
| | (b) Discuss the procedure to access data from the back-end using the database handling features supported in Java language. | 6M |
| OR | | |
| 11 | (a) Define event. Discuss any two event handling functions with an example. | 4M |
| | (b) Discuss the steps in developing JDBC applications with a sample program. | 6M |
