COER University
END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours   Total Marks : 100
Program Name : B.Tech. (CSE, AI&ML, Cyber Security)   Semester : II
Course Name : Object Oriented Programming Using JAVA   Course Code : BTCS203

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	What is the purpose of the main() method in a Java program? Explain the syntax for declaring the main() method.	CO 1	2
(b)	Define the operators in Java.	CO 1	1
(c)	Write a Java program to illustrate the concept of class with method overloading.	CO 1	1
(d)	What is the purpose of the new keyword in Java? Provide an example of how it is used to create an object of a class.	CO 1	2
(e)	Explain the concept of command line arguments in Java. Write a Java program to accept two integers as command line arguments and find their sum.	CO 1	2

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Classify the types of inheritance in Java.	CO 2	3
(b)	What is the purpose of the "final" keyword in Java inheritance? Provide an example to illustrate its usage.	CO 2	2
(c)	What is an abstract class in Java? How is it different from a regular class? Write an example of an abstract class.	CO 2	2
(d)	What is a package in Java? How does it help in organizing and managing Java classes? Write an example of a Java package.	CO 2	2
(e)	Write a program in java to demonstrate different uses of 'this' keyword.	CO 2	1

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Assign the various built-in exceptions in Java and explain their usage.	CO 3	3
(b)	Assign the various thread states in Java multithreading and explain their significance.	CO 3	3
(c)	Define Runnable interfaces in Java multithreading and explain their usage.	CO 3	1
(d)	How can exception handling be used to provide better user experience in a graphical user interface (GUI) application? Give an example.	CO 3	2
(e)	What is the difference between a process and a thread? How is multithreading achieved in Java?	CO 3	2

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Generate a simple JDBC program that establishes a connection to a database and executes a query.	CO 4	6
(b)	Explain how to use the next() method to iterate through a Result Set in JDBC.	CO 4	2
(c)	Explain the connectivity model in Java. What are the different components of the connectivity model? How does it work to connect Java applications to databases?	CO 4	2

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Design and create a simple AWT application with any five Components.	CO 5	6
(b)	Discuss with event handling concept in details.	CO 5	2
(c)	Explain how to add and remove various types of controls such as Labels, Buttons, Check Boxes, Radio Buttons, Choice, and Menu to a user interface in Java. Provide code examples for each control type.	CO 5	2

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