

02000CS206052002

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth semester B.Tech examinations (S), September 2020

Course Code: CS206

Course Name: OBJECT ORIENTED DESIGN AND PROGRAMMING (CS)

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 3 marks.*

		Marks
1	Why java programs are said to be robust?	3
2	Represent the entities 'Student' and 'Course' and their relationship using a Class diagram	3
3	Explain the properties of a Constructor.	3
4	Write a Java program to perform concatenation of two strings read as Command line arguments.	3

PART B*Answer any two full questions, each carries 9 marks.*

5	With the help of a neat sketch, explain the Object Oriented Software Development Life cycle model.	9
6	a) Construct Use-case diagram for an Online Shopping Application	5
	b) Explain any four data types in Java	4
7	a) Create a class called Box with member variables length, breadth and height, and a default and parameterized constructor. a member function to display the volume of a box. Write a Java program to test the class.	6
	b) Write a Java program to sort an array of integers.	3

PART C*Answer all questions, each carries 3 marks.*

8	How can we prevent a class from instantiation?	3
9	Explain Dynamic Method Dispatch in Java	3
10	What are byte streams and character streams? Give examples of Java classes for each stream.	3
11	Explain the concept of thread synchronization	3

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PART D

Answer any two full questions, each carries 9 marks.

- 12 a) What are packages? Illustrate package hierarchy in java with the help of an example 6
- b) Compare and contrast abstract classes and interfaces 3
- 13 a) Explain in detail how exception handling mechanism used in Java using 'throw' and 'throws' 5
- b) Write a Java program to read characters from the console using BufferedReader class 4
- 14 a) Explain the different ways of creating a thread. 6
- b) What are synchronized blocks? Explain with an example 3

PART E

Answer any four full questions, each carries 10 marks.

- 15 a) Discuss the security restrictions imposed on running Java applets 5
- b) Write an applet program that accepts two input string as parameters, concatenate the strings and display it in status window. 5
- 16 a) Explain the working of Delegation Event Model. 6
- b) List out the various event sources and their corresponding listeners. 4
- 17 a) Outline the lifecycle of an Applet. 6
- b) Discuss the differences between Java Applets and Java Applications 4
- 18 a) Differentiate between String and StringBuffer classes. 5
- b) Discuss with proper examples, how we can create new colors and fonts in an AWT program 5
- 19 Write an AWT program to create a Calculator with basic arithmetic operations 10
- 20 Explain the steps using for connecting a Java program to a database using JDBC API with a proper example. 10
