Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Third Semester B.Tech Degree Examination December 2020 (2019 Scheme)

Course Code: CST205
Course Name: OBJECT ORIENTED PROGRAMMING USING JAVA

Max. Marks: 100   Duration: 3 Hours

PART A
Answer all questions. Each question carries 3 marks   Marks

1	Discuss the concept of classes and objects in Java language using an example of a 'student' object in a Student management application.	(3)
2	What are the advantages of using UML? Sketch the UML class diagram for an entity 'book'.	(3)
3	List out any three literal types in Java .Give examples for each.	(3)
4	Differentiate between Arrays and Vector class in Java.	(3)
5	How do you create and import a package in Java?	(3)
6	Write an example of implementing an interface in Java.	(3)
7	Illustrate the working of any two methods of String class that compare strings.	(3)
8	List and explain any three methods defined by the 'List' interface in Java.	(3)
9	Point out the use of a Swing Layout Manager. Explain any one type.	(3)
10	Compare any three types of Swing button classes .	(3)

PART B
Answer any one full question from each module. Each question carries 14 marks
Module 1

11	a) Bring out the difference between function oriented software design approach and object oriented software design approach using the example of an automated fire alarm system.	(4)
	b) Describe buzzwords of Java that defines the Java programming language.	(10)
12	a) Comapre and contrast Java Applets and Java Application.	(4)
	b) Illustrate the Java Programming and Runtime Environment. Explain the roles of each component of it while compiling and executing a java program.	(10)

Module 2

13 a) Discuss about bitwise, relational and conditional operators in Java with examples and compare its precedence. (6)

b) Demonstrate the role of 'super' keyword in the context of inheritance in Java with appropriate examples. (8)

14 a) Point out the significance of 'this' keyword with an example. (4)

b) Write a java program to show the significance of method overriding in achieving run time polymorphism. Discuss difference between method overriding and method overloading. (10)

Module 3

15 a) Write a Java program to copy the contents of one file to another file using FileInputStream and FileOutputStream classes. (5)

b) Describe various methods of reading data from the keyword with appropriate examples in Java. (9)

16 a) Differentiate between checked and unchecked exceptions in Java with examples. (4)

b) Demonstrate the significance of the keywords 'try', 'catch', 'finally', 'throw' and 'throws' in exception handling of Java with appropriate examples. (10)

Module 4

17 a) Discuss the event handling mechanism in Java using the Delegation Event Model? (8)

b) How mouse events are handled in Java? Give suitable Java source code. (6)

18 a) Discuss the methods of creating threads in Java using appropriate examples (8)

b) Write a Java program that creates multiple child threads to print odd and even numbers from **50-100**. (6)

Module 5

19 a) What is use of Swing package in java? Discuss any two features. (6)

b) Write a program to illustrate the use of JFrame, JTextField and JLabel. (8)

20 a) Write sample code to establish database connectivity in Java. Discuss the various steps involved. (10)

b) Write Java code to demonstrate the execution of create and insert queries using JDBC. (4)

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