25-07-2023

Reg. No.												

Question Paper Code	12084

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2023

Third Semester

Computer Science and Engineering

(Common to Information Technology, Computer Science and Business Systems)

20CSPC301 - OBJECT ORIENTED PROGRAMMING

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	List the features of Object Oriented Programming.	2,K1,CO1
2.	Define method overloading.	2,K1,CO1
3.	What is the meaning for the keywords: final, finally, finalize.	2,K1,CO2
4.	Does java support multiple inheritances?	2,K2,CO2
5.	List out the differences between String and String Buffer.	2,K2,CO3
6.	Differentiate static and dynamic binding.	2,K2,CO3
7.	What is meant by an input and output stream?	2,K1,CO4
8.	Differentiate the following: Checked and Unchecked exceptions.	2,K2,CO4
9.	List the advantages of Java Multithreading.	2,K1,CO5
10.	What is Bounded Type Parameters?	2,K1,CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	What is meant by constructor? Discuss the types of constructor with examples.	13,K2,CO1
		OR	
	b)	With relevant examples describe abstraction and encapsulation. Write a java program that uses an abstraction and encapsulation.	13,K2,CO1
12.	a)	What is inheritance in java? Classify the types of inheritance with proper example partial code.	13,K3,CO2
		OR	
	b)	Write an abstract class named Person and its two subclasses named student and Employee. A person has a name, address, phone number and email address. A student has an enrollment course. An Employee	13,K3,CO2

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

has an office, salary, and designation. Define constructors and methods for input and display for both classes. Write a main program to give demonstrations of all.

13. a) Explain about Interfaces in Java with examples. *13,K2,CO3*

OR

b) Explain in detail about Object cloning. Describe Shallow cloning and Deep cloning with suitable example. *13,K2,CO3*

14. a) Describe the concept of streams and about stream classes and its classification. *13,K2,CO4*

OR

b) Deonstrate a try block that is likely to generate three types of exception and then incorporate necessary catch blocks and handle them appropriately. *13,K3,CO4*

15. a) Explain in detail about the life cycle of Thread. *13,K2,CO5*

OR

b) Explain in detail about Generic Class with an example. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) (i) Write a Java Lambda Expression to Create Thread. *7,K2,CO6*

(ii) How Lambda Expression and Functional Interfaces are related? *8,K2,CO6*

OR

b) Write a java program for reactive subjects-creating operators? *15,K2,CO6*