

Reg.No.:



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN

[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]

Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 50023

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Third Semester

Computer Science and Engineering

U19CS307 – OBJECT ORIENTED PROGRAMMING

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

Q.No.	Questions	Marks	(10 x 2 = 20 Marks)	
			KL	CO
1.	Compare class and object.	2	K1	CO1
2.	Express what is meant by object oriented programming.	2	K2	CO1
3.	Point out the conditions to be satisfied while declaring abstract classes.	2	K3	CO2
4.	Give the use of final keyword.	2	K1	CO2
5.	What happened when the statement: int value=20/0; is executed?	2	K2	CO3
6.	Write syntax for java console class.	2	K1	CO3
7.	Define Thread and list any four methods of Thread Class.	2	K1	CO4
8.	List out the classes available for reading bytes under IO class in java.	2	K1	CO4
9.	Formulate the swing components.	2	K2	CO5
10.	Deduce the structure of AWT event hierarchy.	2	K2	CO5

PART – B

Q.No.	Questions	Marks	(5 x 13 = 65 Marks)	
			KL	CO
11. a)	i. Explain OOP and its features.	7	K1	CO1
	ii. Summarize about the usage of constructor with an example using java.	6	K2	

(OR)

	b)	What is inheritance? Discuss the types of inheritance supported in Java with example programs.	13	K2	CO1
12.	a)	Describe what is meant by interface and how is interface is declared and implemented in java with example programs. (OR)	13	K2	CO2
	b)	i. With an example, illustrate how the objects from sub class are inherited by the super class.	7	K3	CO2
		ii. Interpret with an example of method overloading and method overriding.	6		
13.	a)	Elaborate the following with example program. i. ArithmeticException. ii. IndexOutOfBoundsException. (OR)		K2	CO3
			7		
			6		
	b)	How do you catch multiple exceptions in a single block of code? What will be the result of the main method throwing an exception? Explain with an example.	13	K2	CO3
14.	a)	What do you mean by synchronization in java and why it is used in java? What happens if there is no synchronization among threads. Explain the problem with an example. (OR)	13	K2	CO4
	b)	Explain the life cycle of threads in java. Also explain each stage with relevant method needed at each stage with example programs.	13	K2	CO4
15.	a)	Illustrate what is layout management? State the various types of layouts supported by java. Which one is default? (OR)	13	K2	CO5
	b)	i. State the difference between Swing and AWT.	6	K2	CO5
		ii. Write a java program to create JTree in swing.	7	K3	

PART – C

(1 x 15 = 15Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	i. Explain in detail about various operators in java.	7	K1	CO5
	ii. Develop and create a simple calculator with basic operation such as a. Addition. b. Subtraction. c. Multiplication. d. division . (OR)	8	K3	
	b) Create a class named 'Student' with String variable 'name' and integer variable 'roll_no'. Assign the value of roll_no as '2' and that of name as "John" by creating an object of the class Student.	15	K3	CO5