COER University
END SEMESTER EXAMINATION, EVEN SEM 2022-23 (BACK PAPER)

Time : 3 hours Total Marks : 100
Program Name : MCA Semester : II
Course Name : Object Oriented Concepts Using Java Program Course Code : SOC556

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 are the major difference and the similarities between an interface and a class? Write the program where interface can be used to support multiple inheritances?	CO2	1
(b)	How does inheritance promote code reuse in object-oriented programming?	CO 1	2
(c)	What is the purpose of metadata in database management systems?	CO 1	1
(d)	What are Varargs methods? Also, differentiate initializer and static block. Write a single java program to show overloading of Varargs methods?	CO2	1
(e)	What is EDT thread swing? Is swing thread safe in java if no explain why? Which method of Swing thread safe in JAVA?	CO4	3

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	What is the difference between suspending and stopping a thread? How we set priorities for threads?	CO3	2
(b)	List some important features of java programming languages. How java provides better application development environment than c++?	CO1	3
(c)	What are the key differences between class and structure? What are the manipulators in oop and how it works?	CO2	2

(d)	Show the result of the following code:
	　i. System.out.println(2 * (5 / 2 + 5 / 2));
	　ii. System.out.println(2 * 5 / 2 + 2 * 5 / 2);
	　iii. System.out.println(2 * (5 / 2));
	　iv. System.out.println(2 * 5 / 2);
	　v. **Double a = 6.5;**
	　　A += a + 1;
	　　System.out.println(a);
	　　A = 6;
	　　A /= 2;
	　　System.out.println(a);
		CO1	3

(e)	Define following. 　i. Byte code 　ii. Java virtual machine 　iii. keywords 　iv. Javadoc 　v. Typecasting	CO4	2

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Compare jsp and servlets. Explain the jsp scripting elements. Which jsp element code into _jsp service method when jsp is converted into servlet?	CO5	3
(b)	How are input and output operations handled in Java programming?	CO 3	2
(c)	What is method? How method is defined? Give example to state the purpose of finalize ()method in java? Explain how finalize ()method can be used in java program?	CO3	1
(d)	What types of graphical images can be used in a Java application, and how are they loaded?	CO 3	1
(e)	Explain about the dynamic method dispatch in java with example program?	CO4	3

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Explain the following keywords: (i)Annotation inheritance. (ii) Daemon thread.	CO3	1
(b)	How is the concept of streams used in Java and Distinguish between: a) Input stream and reader classes b) Output stream and writer classes	CO4	2
(c)	Name the memory areas that are allocated by JVM and explain the class loader in JVM? What is the significant difference between JVM, JRE, and JDK	CO5	1

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Explain the client/server relationship as applied to java applets? How local applets is differed from remote applets? Describe the different stages in the life cycles of an applets?	CO 3	2
(b)	How can the Servlet API be used to implement specific functionalities, such as session management, data persistence, and security, in a Java web application?	CO 5	3
(c)	Explain the differences between method overriding and overloading? In which situation the variables and the methods are declared as static?	CO 2	3

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