PAPER ID-421075

Subject Code: KCA202

Roll No: | | | | | | | | | | | | | |

MCA

(SEM II) THEORY EXAMINATION 2021-22

OBJECT ORIENTED PROGRAMMING

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2x10 = 20

Qno	Questions	CO
(a)	Explain difference between JDK and JRE in Java.	1
(b)	Object is an instance of class, justify your answer.	1
(c)	What is the role of class path in Java Package?	2
(d)	Write 3 use of Encapsulation in Object Oriented Programming.	2
(e)	Explain difference between throws and throw keyword in Java.	3
(f)	Draw hierarchical diagram of Java.io package.	3
(g)	Explain types of ways to create thread in Java.	4
(h)	Explain generic programming concepts in Java.	4
(i)	Draw hierarchical diagram of Java Swing Classes.	5
(j)	What is the difference between JPanel and JFrame in Java Swing?	5

SECTION B

2. Attempt any *three* of the following: 10x3 = 30

Qno	Questions	CO
(a)	What are uses of this keyword? Explain with proper example.	1
(b)	Explain the role of constructor and also explain how sub class constructor implicitly call super class constructor in Java.	2
(c)	Write Java program to copy one image to another.	3
(d)	Write generic Java program that display sum if pass numeric data and merge text if pass string data.	4
(e)	Explain difference between AWT and Swing with proper example.	5

SECTION C

3. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	Explain the compilation and execution process of Java program with proper diagram.	1
(b)	Explain 10 features of Java Programming Language.	1

4. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	What do you understand by Polymorphism? Explain type of polymorphism with proper example.	2
(b)	What do you mean by abstract class? How abstract class is different from Interface.	2

5. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	Write Java program that accepts a temperature in Celsius. It should throw an Exception "Temperature Below Normal" when the temperature is less than 20C, throw an Exception "Normal Temperature" when the temperature above 20C and below 40C and throw an Exception "Temperature is High" when the it is greater than 40C.	3

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(b)	Explain the use of Buffered Reader and Buffered Writer classes with suitable example	3

6. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	Describe how inter- thread communication is takes place in java with thread life cycle diagram?	4
(b)	Discuss generic bounded class with the help of an suitable example.	4

7. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	Write Java Swing program that change background color whenever user click on button and displays the message “Welcome to Java Swing”.	5
(b)	Determine event? How is event handling done in Java'? Explain with an example.	5