

Hi-Tech Institute of Engineering & Technology

DEPARTMENT OF MCA
(SEM- II) EVEN SEMESTER 2022-23

Subject Code: KCA-202

Subject Name: OOP

Faculty Name: Bhasker Sharma

Time: 90 Minutes

Total Marks: 50

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION-A

1. Attempt all question in brief.

2x 10 = 20

| Q.No | Question | Marks | CO |
|------|---|-------|----|
| a. | Explain difference between JDK and JRE in java. | 2 | 1 |
| b. | What is the role of class path in java package? | 2 | 2 |
| c. | Explain difference between throw and throws keyword in java. | 2 | 3 |
| d. | Draw hierarchical diagram of java.io package. | 2 | 3 |
| e. | Explain types of ways to create thread in java. | 2 | 4 |
| f. | Object is an instance of class, justify your answer. | 2 | 1 |
| g. | Write 3 use of encapsulation in OOPs. | 2 | 2 |
| h. | Explain generic programming concepts in java. | 2 | 4 |
| i. | Draw hierarchical diagram of java swing classes. | 2 | 5 |
| J. | What is the difference between JPanel and JFrame in java swing? | 2 | 5 |

SECTION-B

2. Attempt any FOUR of the following:

10 x 3 =30

| Q.No | Question | Marks | CO |
|------|--|-------|----|
| a. | What is use of this keyword? Explain with proper example. | 10 | 1 |
| b. | Explain the role of constructor and explain how sub class constructor implicitly call super class constructor in java. | 10 | 2 |
| c. | Write a program to demonstrate reading a file. | 10 | 3 |
| d. | Write generic java program that display sum if pass numeric data and merge text if passed string data. | 10 | 4 |
| e. | Explain difference between AWT and Swing with proper example | 10 | 5 |

SECTION-C

3. Attempt any ONE part of the following:

10x1 = 10

| Q.No | Question | Marks | CO |
|------|--|-------|----|
| a. | Explain the compilation and execution process of java program with proper diagram. | 10 | 1 |
| b. | Explain 10 features of java Programming language. | 10 | 1 |

4. Attempt any ONE part of the following:

10x1 = 10

| Q.No | Question | Marks | CO |
|------|---|-------|----|
| a. | What do you understand by polymorphism? Explain the type of polymorphism with proper example. | 10 | 2 |
| b. | What do you mean by abstract class? How abstract class is different from interface. | 10 | 2 |

5. Attempt any ONE part of the following:

10x1 = 10

| Q.No | Question | Marks | CO |
|------|--|-------|----|
| a. | Write java program that accepts a temperature in Celsius. It should throw an exception “a temperature below normal” when a temperature is less than 20C, throw an exception “normal temperature” when the temperature is above 20C and below 40C and throw an exception “temperature is high” when it is greater than 40C. | 10 | 3 |
| b. | Explain the use of buffered reader buffered writer classes with suitable example. | 10 | 3 |

6. Attempt any ONE part of the following:

10x1 = 10

| Q.No | Question | Marks | CO |
|------|---|-------|----|
| a. | Discuss generic bounded class with the help of an suitable example. | 10 | 4 |
| b. | Describe how inter-thread communication is take place in java with thread life cycle diagram. | 10 | 4 |

7. Attempt any ONE part of the following:

10x1 = 10

| Q.No | Question | Marks | CO |
|------|--|-------|----|
| a. | Write a java swing program that change background color whenever use click on button and display the messages “welcome to java swing.” | 10 | 5 |
| b. | Determine event? How is event handling done in java? Explain with example. | 10 | 5 |