



- 1-d. Which of the following is used to declare,construct, and initilize an array? [CO2] 1
- (a) `int arr [] [] = {1, 2, 3, 4};`
  - (b) `int [] arr = (1, 2, 3);`
  - (c) `int [] arr = {};`
  - (d) `int arr [] = {1, 2, 3};`
- 1 Which of these keywords is not a part of exception handling? [CO3] 1
- (a) try
  - (b) finally
  - (c) thrown
  - (d) catch
- 1 In which of the following package Exception class exist? [CO3] 1
- (a) java.file
  - (b) java.lang
  - (c) java.io
  - (d) java.util
- 1 Annotation type definition looks similar to which of the following? [CO4] 1
- (a) Method
  - (b) Class
  - (c) Interface
  - (d) Field
- 1 Which of these stream contains the classes which can work on character stream? [CO4] 1
- (a) Input Stream
  - (b) Output Stream
  - (c) Character stream
  - (d) All of the above
- 1 Give the abbreviation of AWT? [CO5] 1
- (a) Applet Windowing Toolkit
  - (b) Abstract Window Toolkit
  - (c) Absolute Windowing Toolkit
  - (d) None of the above
- 1 Which of these is Basic interface that all other interface inherits? [CO5] 1

- (a) Set
- (b) Array
- (c) List
- (d) Collection

2. Attempt all parts:-

- |      |   |   |
|------|---|---|
| 2.a. | Define the term Bytecode. [CO1]   | 2 |
| 2.b. | Define finalize( ) method. [CO2]  | 2 |
| 2.c. | Mention the default package in Java. Which package should be imported to use Scanner class? [CO3] | 2 |
| 2.d. | What is the difference between InputStream and OutputStream in Java? [CO4]                        | 2 |
| 2.e. | Justify the statement "Swing is platform independent". [CO5]                                      | 2 |

#### SECTION B

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3. Answer any five of the following:-

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|------|---|---|
| 3    | Illustrate the difference between break & continue when they occur in a loop. [CO1] | 6 |
| 3    | Define wrapper class & its need in java program. [CO1]                              | 6 |
| 3-c. | Illustrate constructor overloading with an example. [CO2]                           | 6 |
| 3-d. | Illustrate the use of abstract class with example. [CO2]                            | 6 |
| 3.e. | How to create customized exception in Java. [CO3]                                   | 6 |
| 3.f. | Explain the purpose of the join() method with an example. [CO4]                     | 6 |
| 3.g. | Describe addActionListner(), addItemListner(), addTextListner(). [CO5]              | 6 |

#### SECTION C

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4. Answer any one of the following:-

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|------|--|----|
| 4-a. | Define the JVM architecture with suitable diagram. [CO1]   | 10 |
| 4-b. | Define Iteration. Differentiate between an empty loop & an infinite loop. State one similarity between while & for loop. [CO1] | 10 |

5. Answer any one of the following:-

- |      |  |    |
|------|--|----|
| 5-a. | Write a Program in Java to override a method of Parent class into Child class. [CO2] | 10 |
| 5-b. | Write a Program in Java to create a class that implements two interfaces. [CO2]      | 10 |

6. Answer any one of the following:-

- |      |  |    |
|------|--|----|
| 6-a. | Describe the scenario (with example) where the following unchecked exception occurs: ArithmeticException, NullPointerException, NumberFormatException, | 10 |
|------|--|----|

ArrayIndexOutOfBoundsException. [CO3]

- 6-b. Write a program in Java to handle ArithmeticException using try-catch. [CO3] 10
7. Answer any one of the following:-
- 7-a. Write short notes on following methods of File : a) write() b) flush() c) close() d) read() [CO4] 10
- 7-b. Write a program to write any string to a file. [CO4] 10
8. Answer any one of the following:-
- 8-a. Demonstrate how an Array can be converted into ArrayList. [CO5] 10
- 8-b. Write a Java program to retrieve data from the database. [CO5] 10