**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

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|  | **2BC3103** | Roll No. | Total Printed Pages: 2 |
| **2BC3103** |  |
| BCA II Year III- Semester (Main/Back) End Semester Examination, November 2022  **(AIDS / CS / Mobile / Cloud)** | |
| **BASCCA3103 / BCYCCA3103 / BCMCCA3103 / BCTCCA3103 : OOPS with Java** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | What is mean by OOP? Explain OOP Concepts and its advantages over procedural language? | **(6)** | **Knowledge** |
|  |  |  |  |  |
|  | **(b)** | Write a note on operator precedence and write a program that demonstrates the ‘?’ Operator | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.2** | **(a)** | What are the different types of Operators in JAVA? What is the output of the following program  public class testoperators {  public static void main(String[] args)  {  int a = 20, b = 10, c = 0, d = 20, e = 40, f = 30;  System.out.println("a+b/d = " + (a + b / d));  System.out.println("a+b\*d-e/f = "+ (a + b \* d - e / f));  }  } | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | What will be the output after compiling/ executing following code?  public class Number1{  public static void main(String[] args){  int n= 987654, x = 0;  while(n != 0) {  int r = n % 10;  x = x \* 10 + r;  n = n/10; }  System.out.println("number is: " + x); }} | **(6)** | **Knowledge** |
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|  |  | **UNIT-II (CO2)** |  |  |
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| **Q.3** | **(a)** | Explain the importance of ‘this’ keyword in java with an example program. | **(6)** | **Knowledge** |
|  |  |  |  |  |
|  | **(b)** | Write a note on default, public and private access modifiers with appropriate example | **(6)** | **Understand** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.4** | **(a)** | What Is A Constructor? Describe the Types Of Constructor and Constructor Overloading? | **(6)** | **Knowledge** |
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|  | **(b)** | What Are Command Line Arguments? Explain Dynamic Method Dispatch in Java with an example | **(6)** | **Apply** |
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|  |  | **UNIT-III (CO3)** |  |  |
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| **Q.5** | **(a)** | What is an exception? Describe the exception hierarchy of Java in detail with an elaborated diagram. | **(6)** | **understand** |
|  |  |  |  |  |
|  | **(b)** | Differentiate between abstract class and interface with the help of java program | **(6)** | **Analyze** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.6** | **(a)** | What is a Java package? Write a program to exemplify the use of package. | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | Debug the code given below and rewrite it with correct output.  interface Printable{  Printable (){}  final public void print();  }  class Circle implements Printable {  void print(){  System.out.println("Printing circle");}  }  class TestInterface{  public static void main(String args[]){  Printable d=new Circle();  d.print();  }} | **(6)** | **Analyze** |
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|  |  | **UNIT-IV (CO4)** |  |  |
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| **Q.7** | **(a)** | What are Threads in Java? Write a program to create a thread using Runnable interface. | **(6)** | **Create** |
|  |  |  |  |  |
|  | **(b)** | Explain in detail Java Thread Priority? | **(6)** | **understand** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.8** | **(a)** | What do you mean by Inter Thread Communication in java with an example | **(6)** | **understand** |
|  |  |  |  |  |
|  | **(b)** | Write a short note on Applet and its life cycle. | **(6)** | **Knowledge** |
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|  |  | **UNIT V (CO5)** |  |  |
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| **Q.9** | **(a)** | What is JDBC Driver? Explain all the type of drivers available. | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | Draw block diagram of JDBC architecture and explain its functioning. | **(6)** | **Understand** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.10** |  | Explain the steps of Java Database Connectivity with the help of a program which retrieves all customers from customer table in the Oracle database. | **(12)** | **Apply** |