B.C.A. (Pt.-III)

Cor. Jav. Pro.

304/334
B.C.A. (Part-III) Examination, 2023

(Faculty of Science)

(Three Year Scheme of 10+2+3 Pattern)

Core Java Programming

Paper : 304/334

Time Allowed : 3 Hours   **Maximum Marks : 100**

Answer of all the questions (Short answer as well as are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before you start writing answers of questions.

Question paper consists of **Three** parts.

All Three parts are **Compulsory**

PART-I : (Very short answer) consists of 10 questions of 2 marks each. Maximum limit for each question is up to 40 words.

PART-II :(Short answer) consists of 5 questions of 4 marks each, Maximum limit for each question is up to 80 words.

PART-III : (Long answer) consists of 5 questions of 12 marks each with one question from each unit with internal choices.

PART-I

1. Attempt all questions. Each question carries 2 marks.   10×2=20

    (a) What is Byte Code?

    (b) Write the syntax of enhanced for loop.

    (c) What do you mean by packages in Java?

    (d) What is Interface in Java?

    (e) What is Listeners?

    (f) What is Swing in Java?

    (g) What is the use of paint() method in applet?

    (h) What is Runnable interface in Java?

    (i) What is Network Interface?

    (j) What is Collection Framework in Java?

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PART-II

2. Attempt all question. Each questions carries 4 marks.

5×4=20

(a) Explain all Data Types available in Java.

(b) What is Constructor? Explain with suitable example.

(c) Write short note on Java.util package.

(d) Differentiate between Applet and Standalone application.

(e) What is Datagram?

PART-III

3. Why Java is known as Platform Independent Language? Explain various features of Java in detail.

12×5=60

Or

What do you mean by Operators? Describe various operators available in Java.

4. What is Array? How array is declared and used in Java? Explain by giving proper example.

Or

What is Exception? How Exceptions are handled in Java? Write a program which shows Exception handling Mechanism.

5. What is AWT? Explain any four AWT Components in detail.

Or

Discuss the Layout Managers and their role in GUI based programs in Java.

6. What is Applet? Explain Applet Life cycle in detail. Also make a demo program of Applet.

Or

What is Multithreading? Explain the Life cycle of Thread.

7. Explain in detail about networking of Java highlighting Client and Server Socket and their usages.

Or

What are Collection Classes? Draw its hierarchy and implement List interface in a Java Program.

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304/334   **Cor. Jav. Pro.**

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CORE JAVA PROGRAMMING

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Part - III : *(Long Answer) consists **5** questions of **12** marks each with internal choice.*

PART - I

1. Attempt **all** questions. Each question carry 2 marks.

    (i)   What is JDK ?

    (ii)   What is "String Buffer" ?

    (iii) What is AWT in Java ?

    (iv)   Define Applet.

    (v)   What is URL class in Java ?

    (vi)   Why Java programs are platform independent ?

    (vii) What is the use of "extends" keyword ?

    (viii) What is inner class in Java ?

    (ix)   Define "implicit wait" in Threads.

    (x)   Define 'stack' in Java.

PART - II

2. Attempt **all** questions. Each question carry 4 marks.

    (i)   Explain the 'Conditional Operator' in Java with suitable example.

    (ii)   How Objects are created in Java ? Explain using methods through the objects.

    (iii) Describe "Delegation Event Model" by providing suitable example.

    (iv)   Discuss "Applet life cycle".

    (v)   Differentiate between TCP/IP sockets and server sockets.

PART - III

3. Describe basic features of Java by providing appropriate examples.

OR

Discuss 'Loops' in Java with example.

4. How 'Array' is declared and used in Java ? Explain by giving an example.

OR

Describe the Exception Handling Mechanism by providing appropriate example.

5. Discuss the 'Layout Managers' and their role in the GUI based programs in Java.

OR

What are the uses of Listners and Adapters in Event Handling process ? Explain with example.

6. In what two ways the threads can be created in Java Programming ? Which way is effective and why ? Explain.

OR

Discuss 'Thread Synchronization' by explaining its need and implementation in a multithreading based program in Java.

7. Describe 'Socket Based Connectivity' by providing suitable example.

OR

Write notes on :
(i) Collections
(ii) JDBC

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This question paper contains 2 printed pages.

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B.C.A. (Part-III)

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B.C.A. (Part-III) EXAMINATION, 2019
(Faculty of Science)
(Three-Year Scheme of 10+2+3 Pattern)

Core Java Programming - 334

Maximum Marks : 100

Time Allowed : Three Hours

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PART - I

10x2=20

1. (a) Explain object oriented programming.
    (b) Why do we say that Java is a platform independent language ?
    (c) What is Multithreading in Java ?
    (d) Explain Class and Object.
    (e) What is String Buffer objects in Java ?
    (f) What is AWT Classes ?
    (g) What do you understand by Swing in Java ?
    (h) What is the use of Applet in Java ?
    (i) Explain Socket in Java.
    (j) What is the use of Jar file ?

PART - II

2. (a) Explain some of the important features of Java.   5x4=20
    (b) What is the use of Inheritance ? Also explain its type.
    (c) Discuss some of the Event Handling Mechanism in Java.
    (d) Explain Applet life cycle.
    (e) Differentiate Inner Class and Sub Class.

PART - III
UNIT - I

3. Discuss the various tools that are used to Create and Run Java Program, with suitable example. 12

OR

Why do we say that Java is a pure object oriented programming language ? Explain by defining most of the supporting feature of OOPs by Java.

UNIT - II

4. Write a program in Java to concatenate (Merge) two string using array. 12

OR

Design a program in Java to implement the different types of inheritance and also write code for handling the exception in that.

UNIT - III

5. Write short notes on the following - 12

(a) Differentiate paint and repaint in Java Swing.

(b) Explain Border layout and Grid layout.

OR

(a) Differentiate Swing and AWT in Java.

(b) Why Swing is called light weight ?

UNIT - IV

6. Write a program using Java to illustrate the Applet with suitable example. 12

OR

How do we manage Thread in Java ? Also explain Thread Synchronisation and inter-thread communication with suitable example

UNIT - V

7. Write a program to illustrate the use of Socket Programming with suitable example. 12

OR

Why do we use JDBC ? Explain by writing the code in Java with an example.

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This question paper contains 2 printed pages.

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B.C.A. (Pt.-III)

334

B.C.A. (Part-III) EXAMINATION, 2020
(Faculty of Science)

(Three-Year Scheme of 10+2+3 Pattern)

Core Java Programming

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PART - I

1. Answer all these questions, each carries equal marks.

2x10=20

(a) Explain Abstraction using a simple example.

(b) What is life time of a Variable ?

(c) Discuss any of the 2 disadvantages of array in Java.

(d) What is instance of a Class ?

(e) Discuss any 2 features of Swings in Java.

(f) Why is the need of Applet in Java ?

(g) List out any of the 2 importance of Threading in Java.

(h) What is Runnable interface in Java ?

(i) Discuss any 2 usages of Socket Programming.

(j) Explain TCP/IP socket in Java.

PART - II

2. Answer all these questions. Each question carry equal marks.   5x4=20

   (a) Explain some of the important reasons for the popularity of Java language.

   (b) Differentiate the use of JDK and JVM.

   (c) Design a class using Java to illustrate the use of class and object.

   (d) What is the life cycle of Applet in Java, explain.

   (e) Design a Java code to implement the stack's basic operations.

PART - III

3. (a) Discuss the importance of object oriented programming over structural programming. Also   12
       explain some of the important features, which makes Java differ from other languages.

OR

   (b) Explain the list of operators used in Java.   6

   (c) Design a code in Java to find out the factorial of a given number.   6

4. (a) Design a program using Java to perform the following operations.

       (i) Count the numbers of vowels available in a string.   6

       (ii) Reverse a string using user-defined function.   6

OR

   (b) Design a program in Java to illustrate the usages of Single and Multiple Inheritance (if possible)   7
       by taking any suitable example.

   (c) Design a Java program to explain "Exception Handling".   5

5. Write short notes on the following :

   (a) Java AWT Hierarchy   5

   (b) How to create instance of frame class using AWT   7

OR

   (c) Java Swing component with example   6

   (d) Creation of Frame using Swing   6

6. (a) Explain some of the important drawbacks of Applet and design the code in Java to explain the   12
       Applet viewer tool by Applet.

OR

   (b) Differentiate sleep( ), suspend( ) and wait( ).   8

   (c) Explain synchronisation in respect to Multithreading in Java.   4

7. (a) Explain Socket Class and Server Socket Class and their important methods by taking a program   12
       as an example.

OR

   (b) Explain execution and reading select query using JDBC in Java.   6

   (c) Explain the types of Result sets in JDBC.   6

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