Roll No. ..   Total Pages : 04

J-FB-22-00305

B.Tech. EXAMINATION, 2022

Semester V (CBCS)

CORE JAVA (CSE, IT)

CS-502

Time : 3 Hours   *Maximum Marks : 60*

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt *Five* questions in all, selecting *one* question from each Sections A, B, C and D. Q. No. **9** is compulsory.

Section A

1. (a) Describe the terms Abstraction and Encapsulation with example.   5

   (b) Why is java not a fully object oriented programming language ?   5

2. (a) What do you mean by data types ? Explain various kinds of data types in java with examples.   5

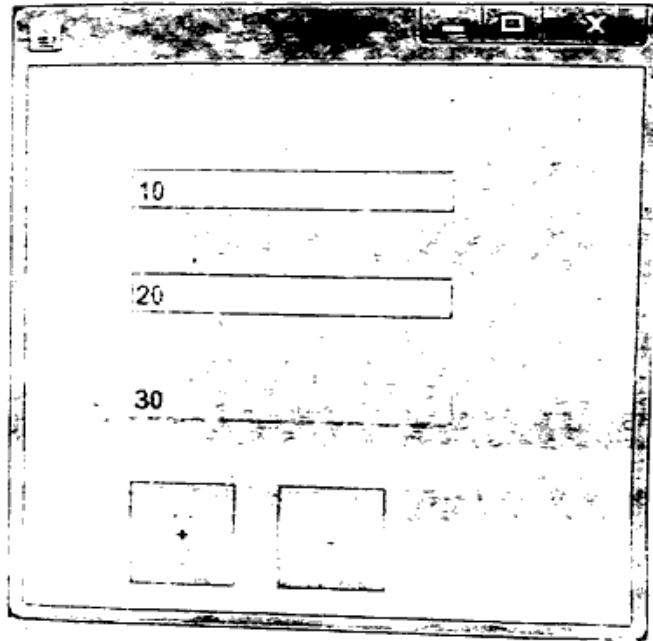   (b) Describe all the control statements in java.   5

Section B

3. (a) Explain the role of construction in java class by providing a suitable example and also describe all types of constructors.   5

   (b) Differentiate the terms method overloading and method overriding with example.   5

4. (a) Mention uses of 'This' keyword in java. Support with appropriate program.   5

   (b) What is Inheritance ? Define all types of inheritance in java programming with a suitable diagram. https://www.hptuonline.com   5

Section C

5. (a) What is Interface ? What kind of problem is solved by an interface ? Write a program to define an interface.   5

   (b) What is event and how is it handled in java ?   5

6. Write a program for JFrame. Jtextfield and JButton with ActionListener as given below : **10**

Section D

7. (a) Define Package. How to create, access and use a package ? Explain it with a suitable example. **5**

(b) Describe the term inter thread communication with a suitable example. **5**

8. (a) Explain the working of the exception handling mechanism in java. Write source code to throw an exception and handle it with multiple catch statements. **5**

(b) Explain the life-cycle of a thread with providing a java code. **5**

(Compulsory Question)

9. Write short notes on the following : **2×10=20**

(a) Arrays.

(b) Bitwise operator

(c) Iteration control statements

(d) Method overloading

(e) Method overriding

(f) Constructor

(g) Adapter classes

(h) Packages

(i) Throw and Throws

(j) Applet.