16055(J) $\mathcal{J}-16$

B. Tech 4th Semester Examination

Internet Technology (Java) (NS)

CS-223

Time : 3 Hours   Max. Marks : 100

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 : Candidates are required to attempt five questions in all selecting one from each of the sections A, B, C & D. And all subparts of the questions in section E.

SECTION - A

1. Explain various operators available in Java.   (20)

2. Explain the concept of recursion taking one suitable example.   (20)

SECTION - B

3. What do you understand by Exception Handling in Java? Explain the use of multiple "catches" in a Java program. What happens if a user does not "try" and "catch" an exception?   (20)

4. Explain the following:

    (a) Super keyword

    (b) Final class

    (c) Abstract class   (20)

SECTION - C

5. What do you mean by synchronization? Explain the concept of synchronization with the help of Java Program.   (20)

6. Write note on Interthread Communication.   (20)

SECTION - D

7. Explain two-tier and three-tier database design mechanism taking suitable example.   (20)

8. Write note on:

    (a) JDBC API

    b.   JDBC Drivers   (20)

SECTION - E

9. (a) What is the Java API?

    (b) How to convert String to Number in Java program?

    (c) What is implicit casting?

    (d) Which class is the superclass of every class?

    (e) How does Java handle integer overflows and underflows?

    (f) How can one prove that the array is not null but empty?

    (g) Can an application have multiple classes having main method?

    (h) When is static variable loaded? Is it at compile time or runtime? When exactly a static block is loaded in Java?

    (i) Can I have multiple main methods in the same class?

    (j) Which package is always imported by default?

          (2×10=20)