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COURSE CODE: DCAP501

COURSE TITLE: MODERN PROGRAMMING TOOLS & TECHNIQUES-I

Time Allowed: 3 hours   **Max. Marks: 80**

1. *This paper contains 10 questions divided in two parts on 1 page.*

2. Part A is compulsory.

3. In Part B (Questions 2 to 10), attempt any 6 questions out of 9. Attempt all parts of the selected question.

4. *The marks assigned to each question are shown at the end of each question in square brackets.*

5. *Answer all questions in serial order.*

6. The student is required to attempt the question paper in English medium only.

PART – A

Q1. (a) What do you mean by variable and reference variable?   [2]

    (b) What is synchronization in respect to multi-threading in Java?   [2]

    (c) What is the difference between method and constructor?   [2]

    (d) What do you mean by 'Package'?   [2]

    (e) What is the difference between abstract class and interface?   [2]

    (f) Define 'Byte Stream' and 'Character Stream'.   [2]

    (g) Write all the methods of 'KeyListener' interface.   [2]

    (h) What are the uses of 'throws' keyword?   [2]

    (i) Name any two layout managers in AWT package.   [2]

    (j) What are the different states of Thread life cycle?   [2]

PART – B

Q2. Write a program to create a thread named "Odd" to print odd numbers from 2 to 20 with sleep time 1 second.   [10]

Q3. Explain data type conversion and casting feature of java with an example.   [10]

Q4. Write a program to copy data from one text file "in.txt" to another file "out.txt" using character stream classes.   [10]

Q5. Explain applet life cycle with an example.   [10]

Q6. Explain any five methods of each of 'String' and 'StringBuffer' class.   [10]

Q7. Explain various keywords used in Exception Handling in Java.   [10]

Q8. Explain any five components of AWT.   [10]

Q9. How many types of nested classes in java. Explain each of them.   [10]

Q10. Explain the use of following keywords:

    (a) 'super' and 'this'   [5]

    (b) 'final' and 'static'   [5]   [10]