

**END SEMESTER EXAMINATION: JANUARY, 2019**

IT201

[ET]

**JAVA PROGRAMMING**

Time: 3 Hrs.

Max Marks: 70

**Note: Attempt questions from all sections as directed.****Section - A: Attempt any Five questions out of Six. Each question carries 6 marks.****[30 Marks]**

- Q1. Explain the architecture of JVM and discuss its role.
- Q2. Write a program in java to print the different tokens from a given string using string tokenizer. Consider the delimiters as ";;".  
Given string is: "Title: Java; Publisher: abc-ltd; Price: 350".
- Q3. Why do we need Multithreading in java and how it is different from Multiprocessor?
- Q4. Write a GUI application to show a login and password button on the screen with appropriate listener.
- Q5. Explain the final keyword in java. Discuss the use of final keyword when applied on class, variable and method.
- Q6. How access specifiers in java modifies the behavior of data members at various levels.

**Section - B: Attempt any two questions out of three. Each question carries 10 marks.****[20 Marks]**

- Q7. (a) What is the role of Package in java? How to create a package and sub package? Illustrate with an example. (5)
- (b) Write a program in Java to reverse each word of a given 10 words string and sort them in dictionary order. (5)
- Q8. Discuss the concept of applet in java. Write an example program to demonstrate the Applet Life cycle.
- Q9. Write a java program to make use of following methods in a program
- i) sleep()
  - ii) start()
  - iii) run()
  - iv) wait()

Section - C: Compulsory question.

- Q10. (a) Design a java applet to display a smiley.
- (b) Design a stand-alone desktop-based application to implement a GUI-based calculator to perform basic operations ( +, -, \*, / ).

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