53 (IT 501) JVPR

## 2017

## JAVA PROGRAMMING

Paper: IT 501 (Back)

Full Marks: 100

Time: Three hours

## The figures in the margin indicate full marks for the questions.

Answer any five questions.

- 1. (a) What is a package? How do you design a package?
  - (b) Explain dynamic method dispatching with example. 5
  - (c) Write a servlet program to display the current time and date.
- 2. (a) Write a Java program to count the number of characters and number of lines in a file.

- (b) Can try block be nested inside another try block? Give a suitable example to illustrate your answer.
- 3. (a) When do you use yield (), stop (), and sleep () methods? Give example.

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- (b) Write a program to sum up the individual digits of a positive integer, given in the command line.
- 4. (a) Write a program to create a vector with seven elements. Remove element at 3rd position and insert new element at 5th location. Display the updated vector.

- (b) What do you mean by synchronization? Explain with example. 10
- 5. (a) Explain how database connection can be established using JDBC. 10
  - (b) If x=5 and y=-8, find the value of the following:

$$x & y, x | y, x^{\ }y, \sim x, \sim y, x << 2,$$
  
 $y << 2, y >> 2, x >>> 1.$ 

6. Write short notes on:

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- (a) J2ME
- (b) Interfaces
- (c) Autoboxing and unboxing
- (d) Event handling.