Total No. of Questions :5]    [Total No. of Printed Pages : 2

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# MCA - 405(B)

## MCA IV Semester

Examination, June 2016

## Java Programming and Technology

(Elective-I)

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

### Unit - I

1. a) What is byte code? Explain.
   b) How does Vector different from an Array?
   c) What does the "static" keyword mean? Can you override private or static method in Java?
   d) Explain constructors in Java with example.

OR

Why is Java called the platform independent programming language? Also explain the purpose of garbage collection in Java.

### Unit - II

2. a) When do we declare a method final?
   b) What do you mean by overriding methods?
   c) When is the finalize() called? What is the purpose of finalization? Explain.
   d) What is the difference between an Interface and an Abstract class?

OR

Explain the life cycle of thread. Also Explain the Selfish and Daemon thread.

### Unit - III

3. a) What is an event in Java? Explain.
   b) What are HTML tags for applet?
   c) Explain the life cycle of an Applet, along with block diagram.
   d) What are the "basic user interface components in AWT class hierarchy"? Explain any five with syntax.

OR

Write short notes on :
i) Ignoring the event    ii) Self contained event
iii) Delegating event

### Unit - IV

4. a) What does connection pooling mean?
   b) What is object serialization?
   c) What is JDBC? Also explain the role of Driver in JDBC.
   d) Write a program that read the contents of file, one character at a time and write them in another file.

OR

What is stream classes? Write a program that will count number of character, words and line in a file.

### Unit - V

5. a) What is the role of the java.rmi. Naming Class?
   b) What is collection framework?
   c) What is the purpose of using RMI Security Manager in RMI?
   d) What are the difference between TCP/IP and UDP/IP? Explain.

OR

Explain in detail server socket and client socket.

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