



## Fourth Semester MCA Degree Examination, June-July 2009

### Topics in Enterprise Architecture – I

Time: 3 hr

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1
  - a. Explain the special features of Java. (08 Marks)
  - b. What is type casting? Illustrate with an example. What is meant by automatic type promotion? (08 Marks)
  - c. Explain the operations of the following operators with examples:
    - i) >>>                      ii) && (04 Marks)
  
- 2
  - a. Explain the following with examples :
    - i) final class            ii) abstract class. (06 Marks)
  - b. Write a Java program to read data from keyboard up to N names and sort them in alphabetical order. (10 Marks)
  - c. Describe the following constructs with examples:
    - i) labeled break            ii) labeled continue (04 Marks)
  
- 3
  - a. What is an exception? How does Java handle exceptions? List some of the most common types of exceptions that might occur in Java. (10 Marks)
  - b. What are interfaces? What are their benefits? Explain how it is implemented in java with suitable examples. (10 Marks)
  
- 4
  - a. Explain Inner class and its access protection with suitable examples. (06 Marks)
  - b. What are applets? How it is different from application program? Explain how parameters are passed to applet program. (09 Marks)
  - c. What is synchronization? When do we use it? (05 Marks)
  
- 5
  - a. How inter thread communication is done in Java? (04 Marks)
  - b. Develop a program to create multithreads with different priorities. (08 Marks)
  - c. Explain any four event listener models. (08 Marks)
  
- 6
  - a. Write the JDBC procedure for the following:
    - i) Getting connection to different database.
    - ii) To create and execute SQL statements.
    - iii) Transaction processing statements. (06 Marks)
  - b. Write a short note on components and containers in swings. (07 Marks)
  - c. Write a short note on RMI. (07 Marks)
  
- 7
  - a. Why it is necessary to deploy servlet into webservers? What are the types of servlets? (07 Marks)
  - b. Discuss JSP tags. (06 Marks)
  - c. Briefly explain EJB interfaces. (07 Marks)
  
- 8
 

Write short notes on the following :

  - a. Applet life cycle.
  - b. Dynamic method dispatch.
  - c. Cookies.
  - d. JVM. (20 Marks)



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**Fourth Semester MCA Degree Examination, May/June 2010**  
**Topics in Enterprise Architecture - I**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1 a. What are the features of Java? Explain them. (10 Marks)  
b. Explain the following : i) Byte code ii) Access specifiers iii) Type casting  
iv) Bitwise operators. (10 Marks)
- 2 a. What is the difference between overloaded methods and overridden methods? Demonstrate a program explaining each. (10 Marks)  
b. What is an applet? Explain the life cycle of an applet? Demonstrate with a program. (10 Marks)
- 3 a. Describe the various forms of inheritance. Demonstrate a program, how to achieve runtime polymorphism in Java. (10 Marks)  
b. What is an exception? Create a try block which generates three types of exceptions and catch those exceptions by incorporating necessary catch blocks. (10 Marks)
- 4 a. What is multithreading? Explain two advantages of multithreaded programs. Write a Java program to implement a producer and consumer problem using threads. (10 Marks)  
b. Name all the event classes and explain any two event classes with an program. (10 Marks)
- 5 a. What are Swings? List the features of swings. Demonstrate a simple swing application program. (10 Marks)  
b. Explain JDBC architecture. What are the main components of JDBC? (10 Marks)
- 6 a. What is the Servlet? What are the phases of the servlet life cycle? Give an example. (10 Marks)  
b. What is Servlet interface? What is the difference between generic servlet and HTTP servlet? Give an example. (10 Marks)
- 7 a. What are the different types of JSP tags? Demonstrate with a simple JSP program. (10 Marks)  
b. What are the different kinds of enterprise beans? Explain. (10 Marks)
- 8 Write short notes on :  
a. Remote method invocation.  
b. Synchronization.  
c. Garbage collection.  
d. Overview of J2EE. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

