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13MCA42

**Fourth Semester MCA Degree Examination, June/July 2016**  
**Advanced Java Programming**

Time: 3 hrs.

Max. Marks: 100

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

- 1 a. Define servlet. Explain the basic servlet structure and its life cycle methods. (10 Marks)  
b. Briefly explain the different HTTP 1.1 request headers. (10 Marks)
- 2 a. List and explain any ten HTTP 1.1 status codes. (10 Marks)  
b. With the help of an example, explain how to use cookies to remember user preferences. (10 Marks)
- 3 Write a brief note on the following:  
a. JSP expressions.  
b. JSP scriptlets.  
c. JSP declarations.  
d. JSP directives. (20 Marks)
- 4 a. Write a JSP program to generate ten random numbers within one hundred. (10 Marks)  
b. With an example, explain the "import attribute" and the "session attribute". (10 Marks)
- 5 a. Define java bean and state its advantages. Explain the features of java bean. (10 Marks)  
b. Explain how to add color property to simple bean, with an example. (10 Marks)
- 6 a. With the help of an example program, explain how to obtain a connection to the database using JDBC. (10 Marks)  
b. Briefly explain the different basic JDBC data types. (10 Marks)
- 7 a. Write a brief note on the following:  
i) Session beans.  
ii) Entity beans. (10 Marks)  
b. With the help of a neat block diagram, explain the life cycle of a stateless session bean. (10 Marks)
- 8 Write a brief note on the following:  
a. Instance pooling / caching.  
b. Transactions.  
c. Security.  
d. Timers. (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.