USN | | | | | | | | | | |

13MCA42

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

Time: 3 hrs. Max. Marks:100

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

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.

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. Witht 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)**

* * * * *