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13MCA42

**Fourth Semester MCA Degree Examination, June/July 2018**  
**Advanced Java Programming**

Time: 3 hrs.

Max. Marks: 100

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

- 1** a. Define servlet. Discuss the life cycle of servlet with appropriate method implementations. (06 Marks)  
 b. Explain about HTTP Request headers. (06 Marks)  
 c. What are the methods available to handle the form data? Write a servlet program to create a dynamic page using form data. (08 Marks)
- 2** a. What is cookie? How to send and receive the cookies? Write a servlet program to keep track the user session using cookies. (10 Marks)  
 b. What is JSP? Explain the advantages of JSP over servlets. (04 Marks)  
 c. Explain about JSP expressions and JSP declarations with syntax and examples. (06 Marks)
- 3** a. Explain about any 6 attributes of page directives. (06 Marks)  
 b. Explain the following JSP action tags  
 i) <jsp : include >  
 ii) <jsp : forward>  
 iii) <jsp : plugin>. (06 Marks)  
 c. Write a JSP program to get student information through HTML and create Java bean class, populate bean and display the same information through another JSP. (08 Marks)
- 4** a. What is annotation? Explain the built-in annotations of Java. (10 Marks)  
 b. What is Java bean? Explain about simple and indexed properties of Java bean. (10 Marks)
- 5** a. Explain the steps in writing JDBC program with sample code. (08 Marks)  
 b. Explain about prepared statement. (04 Marks)  
 c. Explain the following with code snippet : i) Scrollable Resultset ii) Updatable Resultset. (08 Marks)
- 6** a. Explain about the services provided by the container. (10 Marks)  
 b. Discuss the life cycle of Message Driven Bean. (05 Marks)  
 c. What is JMS? Discuss about JMS messaging models. (05 Marks)
- 7** a. What is stateful session bean? Explain about the life cycle of stateful session bean. (08 Marks)  
 b. Define the terms persistence, entity, entity bean and Entity Manager. Write an employee entity bean class which contains employee id and name. (12 Marks)
- 8** Write a short note on the following :  
 a. Advanced JDBC datatypes  
 b. JSP implicit objects  
 c. Status codes  
 d. Jar files. (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.