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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
Fourth Semester, Master of Computer Applications (MCA)
Semester End Examination; June - 2017
Advanced Java Programming

Time: 3 hrs *Max. Marks: 100*

Note: Answer **FIVE** full questions, selecting **ONE** full question from each unit.

UNIT - I

1 a.	What are servlets? Briefly explain servlet life cycle.	10
b.	Explain the process of reading form data from a servlet with suitable program.	10
2 a.	Briefly explain HTTP 1.1. Response Headers.	10
b.	What is a cookie? Write a Java servlet program to remember user preferences using cookies.	10

UNIT - II

3 a.	What do you mean by JSP page? What are the benefits of JSP? How do you display the current time using JSP page?	10
b.	Explain the purpose of the following JSP elements with an example : i) Declarative ii) Expressions iii) Comments.	6
c.	List any four JSP implicit objects and give their details.	4
4 a.	Write a JSP programs to implement all the attributes of page directive tag.	10
b.	Distinguish between JSP:include and include directive.	4
c.	Write a short note on JSP:plugin element.	6

UNIT - III

5 a.	Briefly explain Java.lang sub packages.	4
b.	Describe design patterns for properties in Java bean.	6
c.	Write a Java JSP programs to get student information through a HTML and create a Java bean class, populate bean and display the same information through another JSP.	10
6 a.	Describe in detail the steps involved in developing simple JDBC application.	10
b.	What are the types of JDBC drivers? Explain.	6
c.	Demonstrate the purpose of callable statement object.	4

UNIT - IV

7 a.	What are session beans? List and explain various session beans.	8
b.	Explain container services with respect to EJB.	12
8 a.	What is an enterprise bean? Explain enterprise Java bean specification.	10
b.	Write an EJB application that demonstrates session bean (with appropriate business logic).	10

UNIT - V

9 a. Explain the lifecycle of stateless session bean with an example.   10

  b. Describe JMS with its architecture.   10

10a. Explain different entity relational mappings.   10

  b. List and explain various messaging models of JMS.   10

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