

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION(S), MAY 2019

**Course Code: IT409**

**Course Name: Web Application Development**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions, each carries 15 marks.*

Marks

- |   |  |      |
|---|--|------|
| 1 | a) With a neat diagram explain about multi tier architecture of web applications.                      | (8)  |
|   | b) Explain JDBC Architecture   | (7)  |
| 2 | a) Explain the stages in a Servlets life cycle with a diagram?   | (10) |
|   | b) Differentiate between Driver and Driver Manager classes used in JDBC?                               | (5)  |
| 3 | a) Design and Program a Servlets based online employee management system with the following features : | (10) |
|   | (i) Employee registration (ii) Employee login (iii) Employee search using em_id                        |      |
|   | b) What are the advantages of multi tier architecture design of web applications                       | (5)  |

**PART B**

*Answer any two full questions, each carries 15 marks.*

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|---|---|-----|
| 4 | a) Describe various scopes for sharing data objects among JSP pages?  | (8) |
|   | b) Explain JSP scripting elements with examples   | (7) |
| 5 | a) Explain the different phases of processing a jsp page with the help of suitable diagram  | (8) |
|   | b) Explain how control and data can be passed between JSP pages with an example   | (7) |
| 6 | a) Write a JSP program to store current date and time in a cookie, to display the last visited date, time in the web page upon reopening the same | (8) |
|   | b) Explain JSP application design with MVC through an illustrative example  | (7) |

**PART C**

*Answer any two full questions, each carries 20 marks.*

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|---|--|------|
| 7 | a) Compare Entity bean and Session bean                                | (6)  |
|   | b) Describe the various attributes of a bean                           | (4)  |
|   | c) With a neat diagram explain the life cycle states of an entity bean | (10) |

- 8 a) Illustrate the parts of a Bean (8)
- b) Identify the importance of Deployment Descriptor in a J2EE Application (2)
- c) How does Message Driven Beans differ from Session and Entity Beans (5)
- d) Define RMI (5)
- 9 a) Illustrate the steps involved in building of an Entity Bean (10)
- b) Illustrate the role of Contract in CMP? (4)
- c) Compare and Contrast Container Managed Persistence (CMP) and Bean Managed Persistence (BMP) (6)

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