

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-I(New course)• EXAMINATION – WINTER- 2015

Subject Code: 3715301**Date: 31/12/2015****Subject Name: Advanced Object Oriented Programming****Time: 2:30 pm to 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q. No. 1

- a. Discuss in detail about common type tasks performed by Servlet Container. [7 Marks]
- b. What is Struts? How is the MVC design pattern used in Struts framework? [7 Marks]

Q. No. 2

- a. How do JSP pages work? How is a JSP page invoked and compiled? Does JSP technology require the use of other Java platform APIs? Justify your answer. [7 Marks]
- b. Explain the concept of dynamic binding in java with a suitable example. [7 Marks]

OR

- b. What are packages? Explain creation of packages and accessing classes & interfaces from a package with an example. [7 Marks]

Q. No. 3

- a. What are the components of J2EE application? Explain them. [8 Marks]
- b. What do you mean by synchronization and why is it important? [6 Marks]

OR

Q. No. 3

- a. What do you understand by thread-safety? Why is it required? Discuss about, how to achieve thread-safety in Java Applications. [7 Marks]
- b. What do you mean by Exception? How to handle exceptions thrown by application with another Servlet? [7 Marks]

OR

Q. No. 4

- a. Mention difference between transient, persistent & detached object in Hibernate. [7 Marks]
- b. What are different types of Statement in JDBC? Explain them in detail [7 Marks]

OR

Q. No. 4

- a. What is the use of static variables, static methods? Also explain the concept of static initializer block. [7 Marks]
- b. What is a servlet? What are the advantages of Servlet over CGI? [7 Marks]

OR

Q. No. 5

- a. What are benefits of Spring Framework? Explain briefly. [7 Marks]
- b. Java is platform independent language. Do you agree on this statement? Justify with the concept of byte code and give example. [7 Marks]

OR

Q. No. 5

- a. What is an interface and how a class can inherit from an interface, explain with an example. [6 Marks]
- b. Explain the access control rules (public, private, protected, default members with respect to packages) with a suitable comparison table. [8 Marks]