

**Database System Concepts (First Edition: 2008)**

**Publisher: Cengage Learning**

**By Peter Rob and Carlos Coronel**

**Chapter-10 (10.1, 10.2, 10.3, 10.4, 10.5, 10.6)**

**Chapter-12 (12.1, 12.3, 12.6, 12.7, 12.8, 12.9, and 12.10)**

**Chapter-7 (7.1, 7.2 (7.2.4, 7.2.5, 7.2.6, 7.2.7) 7.3, 7.4, 7.5, 7.6.3) Excluding (7.1.1, 7.1.2, 7.2.3)**

**Chapter-8 (8.1, 8.2, 8.3, 8.4, 8.5)**

**REFERENCE BOOKS:**

1. Introduction to Database Management Systems (First Edition 2006)

Publisher: Tata McGraw-Hill

By ISRD Group

2. An Introduction to Database Systems (Eighth Edition 2006)

Publisher : Pearson

By C. J. Date, A. Kannan & S. Swamynathan

3. An Introduction to Database Systems

Publisher: Pearson

By ITL Education Solutions Limited

**WEB RESOURCES:**

<https://www.techonthenet.com/oracle/>

[http://www.way2tutorial.com/sql/oracle\\_sql\\_introduction\\_type\\_of\\_sql\\_statement.php](http://www.way2tutorial.com/sql/oracle_sql_introduction_type_of_sql_statement.php)

[https://docs.oracle.com/cd/B19306\\_01/server.102/b14200/](https://docs.oracle.com/cd/B19306_01/server.102/b14200/)



# GUJARAT UNIVERSITY

## BCA SEM-IV SYLLABUS

<b>COURSE TITLE</b>	<b>System Analysis, QA and Testing</b>
<b>COURSE CODE</b>	<b>CC-209</b>
<b>COURSE CREDIT</b>	<b>3</b>
<b>Session Per Week</b>	<b>3</b>
<b>Total Teaching Hours</b>	<b>40 HOURS</b>

### AIM

To develop the skill about System Analysis, Quality Assurance and types of Testing Methods  
To make the students able to design CD,DFD, UML Diagrams and test the existing systems.

### LEARNING OUTCOMES

On the completion of the course students will:

- 1.Understand different models and draw data flow diagrams
- 3.Understand the basic android terminology and technology
- 4.Learn how to draw uml diagrams
- 5.To understand the basic terminologies and types of testing

### DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	<b>SYSTEM ANALYSIS AND DESIGN</b>	<b>10</b>
	Software Development Models o Waterfall Model o The Incremental Model o The Spiral Model	<b>4</b>
	Requirement Modeling / Fact-finding techniques Interview Document review Observation Questionnaires and surveys Overview Feasibility Study Operational , Technical , Economic , Schedule Feasibility Data Flow Diagram: Concepts, Symbols, Rules, Construction of CD and DFD	<b>6</b>

2	<b>Object Oriented Analysis</b>	<b>10</b>
	The Constituents of OOAD: o Objects and Classes o Links and Association o Generalization and Specialization o Aggregation and Composition o Coupling and Cohesion o Components o Interfaces	<b>4</b>
3	<b>UML DIAGRAMS</b> Use-Case Diagram: Benefits of Use-Case Diagram o Actors, Use-Cases , Relationship between Actor and Use Case Sequence Diagram: Elements of Sequence Diagram: Life Lines, Messages, Activation, Guards, Combined Fragments, Objects	<b>6</b>
	<b>UML DIAGRAMS</b> Activity Diagram: Elements of Activity Diagram: Initial State, Final State Action / Activity Transitions , Decision Synchronization, Fork and Join Swim lanes, Object and Object Flow Class Diagram: o Elements of Class Diagram:	<b>6</b>
4	User Interfaces and Layouts o Viewgroups o Built-in Layout classes o FrameLayout, LinearLayout, RelativeLayout,TableLayout, GridLayout o Multiple Layouts on a screen	<b>4</b>
	<b>QA and TESTING</b>	<b>10</b>
4	Quality, Quality Assurance and Quality Control White Box Testing Black Box Testing Integration Testing	<b>6</b>
	<b>QA and TESTING</b> System and Acceptance Testing Performance Testing Regression Testing Test Metrics and Measurements	<b>4</b>