5 Years Integrated M.Sc. (IT) – Semester 2
Lesson Planning
060010209 – RDBMS

Unit	Unit Name	Sub Unit	Topics	No. of Lectures	Reference Chapter/Additional Reading	*Teaching Methodology*
1	Introduction to Procedural SQL	1.1.	Subject Overview and Importance, Revision of DBMS	2	-	Chalk and Talk, Presentation and Demonstration
		1.2.	Introduction RDBMS: E.F. Codd's Rule, DBMS vs. RDBMS	1	http://en.wikipedia.org/wiki/Codd's_12_rules	
		1.3.	Advanced Data Types	1	MM-#13 Page No 378-380	
		1.4.	Conditional Statements	2	MM-#13 Page No 381-384	
		1.5.	Looping Statements	2	MM-#13 Page No 385-386	
		1.6.	Exceptional Handling	1	MM-#13 Page No 390-396	
2	Application Development using Procedural SQL	2.1.	Overview of Function and Procedure	1	MM-#15 Page No 416	Chalk and Talk, Presentation and Demonstration
		2.2.	Function and Procedure Usage	1	MM-#15 Page No 440 EB-#18 Page No 414	
		2.3.	Creation of Stored Procedure	3	MM-#15 Page No 417 -432 EB-#18 Page No 415-426	
		2.4.	Calling Stored Programs from Stored Programs	1		
		2.5.	Creation of User Defined Function	2	MM-#15 Page No 434 -438	
		2.6.	Calling Function from Stored Programs	1		
3.	Working with Cursor	3.1.	Overview of Cursor	1	EB-#18 Page No 448 MM-#16 Page No 444-490	Chalk and Talk, Presentation and Demonstration
		3.2.	Types of Cursor	1	EB-#18 Page No 449 MM-#16 Page No 444-490	
		3.3.	Cursor Declaration	1	EB-#18 Page No 449 MM-#16 Page No 444-490	
		3.4.	Cursors : OPEN CLOSE and FETCH	2	EB-#18 Page No 450- 457 MM-#16 Page No 444-490	
		3.5.	Advantages and Disadvantages of Cursor	1	EB-#18 Page No 457 MM-#16 Page No 444-490	
4.	Triggers	4.1.	Triggers and Their Features, Types of Triggers	1	MM-#16 Page No 446 EB-#18 Page No 457	Chalk and Talk, Presentation and Demonstration

		4.2.	Trigger Events	1	MM-#16 Page No 446 EB-#18 Page No 459	
		4.3.	Trigger Creation	1	MM-#16 Page No 447-453 EB-#18 Page No 458	
		4.4.	Implementation of BEFORE and AFTER Trigger	2	MM-#16 Page No 447-453 EB-#18 Page No 459 -462	
		4.5.	Error Handling in Trigger, Restriction on Trigger	1	MM-#16 Page No 454-456 EB-#18 Page No 463-464	
5.	Transaction Processing	5.1.	Concepts in Transaction Processing	2	EN-#17-Page No 612	Chalk and Talk, Presentation and Demonstration
		5.2.	Transaction and System Concepts	2	EN-#17-Page No 618-621	
		5.3.	Desirable Properties of Transactions	1	EN-#17-Page No 621-623	
		5.4.	Serial, Non-Serial and Schedules	2	EN-#17-Page No 623-626	
		5.5.	Testing for Conflict Serializability	2	EN-#17-Page No 630-633	
6.	Concurrency Control	6.1.	Need of Concurrency Control	1	EN-#18-Page No 640	Chalk and Talk, Presentation and Demonstration
		6.2.	Types of Locks and System Lock Tables	2	EN-#18-Page No 644-648	
		6.3.	Serializability by Two-Phase Locking	2	EN-#18-Page No 648-650	
		6.4.	Dealing with Deadlock and Starvation	2	EN-#18-Page No 651-654	
		6.5.	Timestamp Ordering	2	EN-#18-Page No 654-658	

Text Book:

1. Joel Murach, Murach's MySQL,Murach..[Short Form : MM]
2. Elmasri, R. and Navathe, S. B. Fundamentals of Database Systems, Pearson Education. .[Short Form : EN]

Reference Books:

1. Henry F. Korth, Dabase management system concepts, McGraw Hill.
2. S.kSinha, Database Systems concepts, design and applications, Pearson Edition.
3. MySQL Reference Manual-https://dev.mysql.com/doc/refman/5.6/en/index.html
4. Ivan Bayross, MySQL 5 for Professional, SPD. .[Short Form : EB]