**SQL Server with SSRS Course Details**

**Syllabus:**

**I**. **Concepts**

* Database concepts
* RDBMS Concepts
* Data ModelsConstraints Normalization- 1NF,2NF,3NF,BCNF etc
* ER Diagrams

**Sql Server Concepts**

* Introduction to Sql Server 2008 R2

**Sql Server 2008 Features**

* Server typesEditionsComponentsManagement StudioT-SQL FeaturesNew Operators
* DML Statements

**T-SQL**

* DDLData TypesSystem Defined data typesUser defined DataCreate/modify/delete tablesCreate/modify/delete tablesOperatorsDMLDCL
* Using Select Statement

**Maintaining Database Integrity**

* Constraints  RulesEntity IntegrityDomain Integrity
* Referential Integrity

**Sub Queries**

* Built-in functionNested sub queriesCorrelated sub queriesDerived tablesRecursive queries
* Common table expression

**Joins**

* Cross join, inner join, self join, outer join

**Indexes**

* Types of IndexesCreating indexesModifying indexes
* Dropping indexes

**Views**

* About ViewCreating ViewsAltering ViewsMaterialized  views
* Distributed view

**Stored Procedures**

* AdvantagesSystem stored proceduresExtended stored procedures
* Parameter handling

**User Defined functions**

* Returning scalar valueReturning table of dataDeterministic functions
* Non deterministic functions

**Triggers**

* Constraints Vs triggersAfter triggersInstead of TriggerDDL triggers
* Altering and Dropping Triggers

**Cursors**

* Select Vs CursorsTypes of CursorsCreating CursorsOpen/fetch/close cursors
* Using cursors in Stored procedures and Triggers.

**Microsoft  .NET Frame Work Integration**

* CLR integrationUDAUDFStored Procedures
* Triggers

**Transactions and locks**

* ACID propertiesImplicit TransactionsExplicit TransactionsTransaction processConcurrency problemsLock TypesDistributed Transactions
* Dead Locks

**Data Transformation services**

* BCP
* DTS

**Administrative tasks**

* Creating databaseCopy, maintaining databaseSecurity conceptsSchemas, permissions
* Backup and Restore database

**Sql Server AgentSql Server ProfilerDatabase Engine Tuning Adviser**

**Sql Server Management Objects**

* Programming with SMOConnecting to Sql Server
* Scripting

**XML in Sql Server**  
**Working with Images**  
**Introduction to MS- BI**

* SSRSStandard, Ad- hoc Embedded ReportsSSIS
* SSAS

**Sql Server 2012 Features**

* SequenceOFFSET and FETCH
* WITH RESULT SETS in stored procedure  
  THROW in triggers

**Sql Server 2014 features**