OPEN SOURCE SOFTWARE			
Subject Code	18XXITO70MA	IA Marks	30
Number of Lecture Hours/Week	3	Exam Marks	70
Total Number of Lecture Hours	50	Exam Hours	03
Credits – 03			

Unit -1	Hours
Introduction to Open source: Need of Open sources, Advantages and Applications of open sources, Open Source Operating Systems: Linux Introduction, General overview - Kernel and user Mode, Linux: Process, Advanced Concepts, scheduling, Personalities, Cloning, Signals, Development with Linux.	**10**

Unit -2	
Open Source Database: Introduction to MYSQL, Setting up account, starting, writing own sql Programs, Record selection, working with strings, date and Time, Sorting query Results, generating summary, Working with metadata, Using Sequences, Mysql and web.	**08**

Unit – 3	
Introduction to PHP: Programming In web environment, Variable, constants, data types, Operators, statements, Functions and Arrays, OOP, string manipulation, Regular expression, File handling & Data Storage, PHP and SQL database, PHP and LDAP, PHP Connectivity - sending and receiving mails, Debugging and Error handling, Security and Templates.	**10**

Unit – 4	
PYTHON: Syntax and Style, Python objects, Numbers, Sequences, Strings, Lists, Tuples, Dictionaries, Conditionals, Loops, Files –Input and Output, Errors and Exceptions, Functions, Modules, Classes and OOP, Execution Environment.	**10**

Unit – 5	
PERL: Overview, Variables - scalars, arrays and hashes, Operators, Control Structures - Conditional and looping statements, Subroutines, Packages and Modules, Working with files, Working with Database, Data manipulation. **RUBY:** Overview, Variables - arrays and hashes, Control Structures - conditional and looping statements, Methods, Blocks, Modules, Iterators, Working with files, Working with Database.	**12**