B. Sc. IT (HONS.): 5th Semester						
Course Title	**Course Code**	**Credits- 06**			**Total Marks- 90**	
		Theory	**Tutorial**	**Practical**	**Theory**	**Practical**
PHP Programming	BIT520D2A	04	Nil	02	**60**	**30**

Unit I
Introduction to PHP (3L)
☐PHP introduction, inventions and versions, important tools and software requirements (like Web Server, Database, Editors etc.), PHP with other technologies, scope of PHP , Basic Syntax, PHP variables and constants , Types of data in PHP , Expressions, scopes of a variable (local, global) , PHP Operators : Arithmetic, , Assignment, Relational , Logical operators, Bitwise , ternary and MOD operator. ,PHP operator Precedence and associativity

Unit II
Handling HTML form with PHP
HTML
Capturing Form Data, GET and POST form methods, Dealing with multi value fields, Redirecting a form after submission
PHP conditional events and Loops
PHP IF Else conditional statements (Nested IF and Else), ☐Switch case, while, For and Do While Loop, ☐Goto , Break ,Continue and exit

Unit III
PHP Functions
Function, Need of Function, declaration and calling of a function, ☐PHP Function with arguments, Default Arguments in Function, ☐Function argument with call by value, call by reference, Scope of Function Global and Local
String Manipulation and Regular Expression (2L)
Creating and accessing String , Searching & Replacing String , Formatting, joining and splitting String , String Related Library functions , Use and advantage of regular expression over inbuilt function , Use of preg_match(), preg_replace(), preg_split() functions in regular expression

UNIT IV
Array
☐Anatomy of an Array ,Creating index based and Associative array ,Accessing array , ☐Looping with Index based array, with associative array using each() and foreach(), Some useful Library function .

Note: *The Practical Component shall be based on the Unit-I to Unit-IV*

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Android Programming	BIT520D2B	04	Nil	02	**60**	**30**

Unit I

Introduction: History of Android, Introduction to Android Operating Systems, Android Development Tools, Android Architecture.

Unit II
Overview of object oriented programming using Java: OOPs Concepts: Inheritance, Polymorphism, Interfaces, Abstract class, Threads, Overloading and Overriding, Java Virtual Machine.

Unit III
Development Tools: Installing and using Eclipse with ADT plug-in, Installing Virtual machine for Android sandwich/Jelly bean (Emulator), configuring the installed tools, creating a android project – Hello Word, run on emulator, Deploy it on USB-connected Android device.

Unit IV
User Interface Architecture: Application context, intents, Activity life cycle, multiple screen sizes.
User Interface Design: Form widgets, Text Fields, Layouts, Button control, toggle buttons, Spinners (Combo boxes), Images, Menu, and Dialog.
Database: Understanding of SQLite database, connecting with the database.

Note: *The Practical Component shall be based on the Unit-I to Unit-IV*

Book Recommended:
1. Android application development for java programmers. By James C. Sheusi. Publisher: Cengage Learning, 2013.