

**UNIT I****Chapter 1 : Expressions and Control Statements in PHP****1-1 to 1-31****Syllabus :**

- 1.1 History and Advantages of PHP, Syntax of PHP
- 1.2 Variables, Data Types, Expressions and operators, constants
- 1.3 Decision making control statements-if, if-else, nested-if, switch, break and continue statement
- 1.4 Loop control statements-while, do-while, for and foreach

1.1	Introduction.....	1-1
1.1.1	Uses of PHP.....	1-1
1.1.2	Advantages of PHP.....	1-1
1.1.3	Syntax of PHP.....	1-2
1.1.4	Embedding PHP within HTML.....	1-3
1.1.5	PHP Comments.....	1-3
1.1.6	PHP echo and print.....	1-3
1.2	Variables.....	1-5
1.2.1	Variable Scope.....	1-6
1.2.2	PHP \$ and \$\$ Variables.....	1-7
1.2.3	Data Types.....	1-8
1.2.3(A)	Type Juggling.....	1-10
1.2.3(B)	Type Casting.....	1-10
1.2.4	Expressions and Operators.....	1-11
1.2.4(A)	Arithmetic Operators.....	1-11
1.2.4(B)	Assignment Operators.....	1-12
1.2.4(C)	Comparison Operators.....	1-13
1.2.4(D)	Increment/Decrement Operators.....	1-14
1.2.4(E)	Logical or Relational Operators.....	1-15
1.2.4(F)	String Operators.....	1-16
1.2.4(G)	Array Operators.....	1-17
1.2.4(H)	Conditional or Ternary Operators.....	1-18
1.2.4(I)	Spaceship Operators (Introduced in PHP 7).....	1-18
1.2.4(J)	Bitwise Operators.....	1-19
1.2.4(K)	Operator Precedence and Associativity.....	1-21
1.2.5	Constants.....	1-22
1.3	Decision Making Control Statements.....	1-22
1.3.1	if statement.....	1-22
1.3.2	if-else Statement.....	1-23
1.3.3	Nested-if Statement.....	1-24



1.3.4	Switch Statement.....	1-24
1.3.5	Break and Continue Statement.....	1-25
1.4	Loop Control Statements .....	1-26
1.4.1	while Statement .....	1-26
1.4.2	do-while Statement .....	1-27
1.4.3	for Statement.....	1-28
1.4.4	foreach Statement .....	1-29
1.5	Solved Programs .....	1-29

## UNIT II

### Chapter 2 : Arrays, Functions and Graphics

2-1 to 2-32

#### Syllabus :

- 2.1 Operating System, Java JDK, Android SDK
- 2.1 Creating and Manipulating Array, Types of Arrays- Indexed, Associative and Multi-dimensional arrays
- 2.2 Extracting data from arrays, implode, explode, and array flip.
- 2.3 Traversing Arrays
- 2.4 Function and its types - User defined function, Variable function and Anonymous function.
- 2.5 Operations on String and String functions : str\_word\_count() strlen(),strrev() stripslashes() str\_replace(), cwords(),strtoupper(), strtolower(),strcmp().
- 2.6 Basic Graphics Concepts, Creating Images, Images with text, Scaling Images, Creation of PDF document.

2.1	Creating and Manipulating Array.....	2-1
2.1.1	Indexed or Numeric Arrays .....	2-1
2.1.2	Associative Arrays .....	2-2
2.1.3	Multidimensional Arrays.....	2-4
2.2	Extracting Data from Arrays.....	2-5
2.2.1	Compact() Function .....	2-6
2.2.2	Implode and Explode .....	2-6
2.2.2(A)	Implode() Function.....	2-7
2.2.2(B)	Explode() Function.....	2-7
2.2.2(C)	Array_flip()Function .....	2-8
2.3	Traversing Arrays .....	2-8
2.3.1	Modifying Data in Arrays.....	2-9
2.3.2	Deleting Array Elements .....	2-10
2.3.3	The array_values().....	2-11
2.3.4	Sorting Arrays.....	2-11
2.3.5	Splitting and Merging Arrays.....	2-12
2.3.6	PHP Array Functions .....	2-13



2.4	Functions and Its Types.....	2-15
2.4.1	Variable Function.....	2-16
2.4.2	Anonymous or Lambda Function .....	2-17
2.5	Operations on String and String Functions .....	2-18
2.5.1	Operations on Strings .....	2-18
2.5.2	String Functions.....	2-21
2.5.3	PHP Maths Functions .....	2-24
2.5.4	PHP Date Functions .....	2-25
2.6	Basic Graphics Concepts .....	2-26
2.6.1	Creating an Image .....	2-26
2.6.2	Images with text.....	2-27
2.6.3	Scaling Images.....	2-28
2.6.4	Creation of PDF Document.....	2-30
2.7	Solved Programs .....	2-31

**UNIT III**

**Chapter 3 : Apply Object Oriented Concepts in PHP**

**3-1 to 3-32**

**Syllabus :**

- 3.1 Creating Classes and Objects
- 3.2 Constructor and Destructor
- 3.3 Inheritance, Overloading and Overriding, Cloning Object
- 3.4 Introspection, Serialization.

3.1	Creating Classes and Objects .....	3-1
3.1.1	Advantages of OOP.....	3-1
3.1.2	Understanding basic OOP Concepts .....	3-2
3.1.3	Creating Classes and Objects in PHP .....	3-2
3.1.4	Creating and Using Properties .....	3-3
3.1.5	Solved Programs .....	3-5
3.1.6	this Keyword .....	3-7
3.2	Constructor and Destructor .....	3-8
3.2.1	Setting Up New Objects with Constructors .....	3-8
3.2.2	Constructor Types .....	3-8
3.2.3	Cleaning Up Objects with Destructors.....	3-10
3.2.4	Comparison between Constructors and Destructors .....	3-11
3.3	Inheritance, Overloading and Overriding, Cloning Object.....	3-11
3.3.1	Inheritance.....	3-11
3.3.2	Types of Inheritance .....	3-13
3.3.2(A)	Single Inheritance.....	3-13



3.3.2(B) Multilevel Inheritance .....	3-14
3.3.2(C) Hierarchical Inheritance .....	3-15
3.3.2(D) Multiple Inheritance.....	3-15
3.3.3 Interface .....	3-16
3.3.4 Concrete Class .....	3-18
3.3.5 Abstract Class and Abstract Methods .....	3-18
3.3.6 Overloading and Overriding .....	3-19
3.3.6(A) Property and Rules of Overloading in PHP .....	3-20
3.3.6(B) Types of Overloading in PHP.....	3-20
3.3.7 Method Overriding .....	3-22
3.3.8 Final Keyword.....	3-23
3.3.9 Cloning Object.....	3-24
3.3.10 Deep Copy and Shallow Copy .....	3-26
3.4 Introspection, Serialization.....	3-28
3.4.1 Introspection.....	3-28
3.4.2 Serialization .....	3-31
3.4.3 Magic Methods with PHP Object Serialization .....	3-32

<b>UNIT IV</b>
----------------

**Chapter 4 : Creating and Validating Forms****4-1 to 4-32****Syllabus :**

- 4.1 Creating a webpage using GUI components, Browser Role-GET and POST methods, Server role.
- 4.2 Form controls: text box, text area, radio button, check box, list, buttons
- 4.3 Working with multiple forms: A web page having many forms, A forms having multiple submit buttons.
- 4.4 Web page validation
- 4.5 Cookies: Use of cookies, attributes of cookies, create cookies, modify cookies value and delete cookies
- 4.6 Session: use of session, start session, get session variables, destroy session
- 4.7 Sending e-mail.

4.1 Creating a Webpage Using GUI Components .....	4-1
4.1.1 Browser Role - GET and POST Methods.....	4-2
4.1.1(A) GET Method .....	4-2
4.1.1(B) POST Method.....	4-3
4.1.1(C) Difference between GET and POST Methods in PHP.....	4-4
4.1.2 Server Role.....	4-4
4.2 Form Controls.....	4-6
4.2.1 Text Field.....	4-6
4.2.2 Text Area.....	4-7



4.2.3	Radio Button.....	4-8
4.2.4	Check Box.....	4-9
4.2.5	List Box.....	4-11
4.2.6	Buttons.....	4-12
4.2.7	Hidden Controls.....	4-13
4.3	Working with Multiple Forms.....	4-14
4.3.1	A Web Page having Multiple Forms.....	4-14
4.3.2	A Form having Multiple Submit Buttons.....	4-18
4.3.3	Self Processing Form : PHP_Self.....	4-19
4.4	Web Page Validation.....	4-20
4.4.1	Superglobals.....	4-22
4.5	Cookies.....	4-23
4.5.1	Use of Cookies.....	4-23
4.5.2	Attributes of Cookies.....	4-23
4.5.3	Create Cookies.....	4-24
4.5.4	Modify Cookies Value.....	4-25
4.5.5	Delete Cookies.....	4-25
4.5.6	Accessing Cookie Value.....	4-25
4.5.7	Types of Cookies.....	4-26
4.5.8	Advantages and Disadvantages of Cookies.....	4-26
4.6	Session.....	4-27
4.6.1	Use of Session.....	4-27
4.6.2	Start Session.....	4-27
4.6.3	Set Session Variables.....	4-28
4.6.4	Get Session Variables.....	4-28
4.6.5	Destroy Session.....	4-29
4.6.6	Session_register().....	4-29
4.6.7	Difference between Session and Cookies in PHP.....	4-30
4.7	Sending E-mail.....	4-30
4.8	Solved Program.....	4-31

**UNIT V****Chapter 5 : Database Operations****5-1 to 5-27****Syllabus :**

- 5.1 Introduction to MySQL, Create a Database.
- 5.2 Connecting to a MySQL database: MySQL database server from PHP.
- 5.3 Database Operations: Insert data, Retrieving the Query Result.
- 5.4 Update and Delete operations on table data



---

5.1	Introduction to MySQL .....	5-1
5.1.1	Features of MySQL.....	5-2
5.1.2	MySQL Tools .....	5-2
5.1.3	Data Types in MySQL.....	5-2
5.1.4	Accessing MySQL via the Command Line .....	5-5
5.1.5	MySQL Commands .....	5-6
5.1.6	Database Related Commands .....	5-6
5.1.6(A)	Creating a Database.....	5-6
5.1.6(B)	Select Databases .....	5-7
5.1.6(C)	Drop Database .....	5-7
5.1.7	Table Related Commands .....	5-7
5.1.7(A)	Creating a Table .....	5-7
5.1.7(B)	Describe Command .....	5-7
5.1.7(C)	Adding Data to a Table .....	5-8
5.1.7(D)	Deleting a Table .....	5-9
5.1.8	Querying a MySQL Database .....	5-9
5.1.9	Accessing MySQL via phpMyAdmin .....	5-10
5.1.10	MySQL Storage Engine .....	5-11
5.2	Connecting to MySQL Database.....	5-12
5.2.1	Connecting MySQL Database Server from PHP .....	5-12
5.2.2	Creating a Login File.....	5-13
5.2.3	Connecting to a MySQL Database.....	5-13
5.2.4	Building and Executing a Query .....	5-14
5.2.5	Fetching a result .....	5-14
5.2.6	Fetching a Row.....	5-15
5.2.7	Closing a connection .....	5-16
5.2.8	mysql_fetch_object.....	5-16
5.2.9	Solved Programs .....	5-19
5.3	Database Operations .....	5-24
5.3.1	Insert Operation .....	5-24
5.3.2	Retrieving the Query Result.....	5-24
5.3.3	Update Operation .....	5-25
5.3.4	Delete Operations.....	5-26

---