Guidelines for BSc Phy Science VIth Semester SEC
BSCS10B: PHP Programming

Topic	Contents of Book	Reference
Unit 1 - Introduction: Introduction to three tier web application development, front end, business layer and back end connectivity, role of PHP in web application development, software requirements.	Chapter 1, 2 (Only LAMP, XAMP and MAMP) https://en.wikipedia.org/wiki/Multitier_architecture	[1]
Unit 2 - Starting PHP Programming: Basics of PHP programming, variables, scope of a variable, expressions, operators, operator precedence, simple procedural scripts, decision making based on conditions, case structure, loops.	Chapter 3 (pg 35-53, 55-59 (till global variables)) Chapter 4 (pg 63-91(till implicit and explicit casting))	[1]
Unit 3 - Modular Programming: Functions and objects, Passing parameters.	Chapter 5 (pg 95-109)	[1]
Unit 4 - Strings and Arrays: Creating and accessing strings, built-in functions for string and string formatting, creating index based and associative array, accessing array elements.	Chapter 6 (pg 123-128, 132-136) from [1] Chapter 4(till pg 124) from [2]	[1] [2]
Unit 5 - Forms and form processing: Capturing form data, GET and POST form methods, processing of form data, and use of regular expressions.	Chapter 11 (till page 283) [1] Chapter 4(pg 124-130) from [2]	[1] [2]
Unit 6 - Integrating PHP & DBMS: Connecting PHP and DBMS, creating database, defining database structure and accessing data stored in tables using PHP.	Chapter 10 (pg 234, 235, 248-252)	[1]

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References:

[1] Nixon, R. (2014). Learning PHP, MySQL, JavaScript, CSS & HTML5. 4th Edition, O'reilly.

[2] Welling, L., Thompson, L. (2008). PHP and MySQL Web Development. 4th Edition, Addison-Wesley Professional.

Additional Resources:

1. Boronczyk, T., & Psinas, M. E. (2008). PHP and MYSQL (Create-Modify-Reuse).

Wiley India Private Limited.

2. Holzner, S. (2007). PHP: The Complete Reference. McGraw Hill Education (India).

3. Sklar, D., & Trachtenberg, A. (2014). PHP Cookbook: Solutions & Examples for PHP Programmers. O'Reilly Media.

List of Practicals:

(Use HTML forms for accepting input from user)

1) Write a PHP script to input three numbers and print the largest number.
2) Write a PHP code which accepts a number(from 1-12) as month value, and displays the number of days in that month. (use Switch case).
3) Using switch case and dropdown list display a "Hello" message depending on the language selected in the drop down list.
4) Write a PHP script to find the sum of first n odd numbers.
5) Write a PHP script to check whether the given number is prime or not.
6) Write a PHP script to construct the following pattern, using nested for loop:
   ```
   *
   * *
   * * *
   ****
   *****
   ```
7) Write a function to calculate the factorial of a number (non-negative integer), which accepts the number as an argument. Use this function to compute C(n,r).
8) Write a PHP script to accept a string from the user, and print its reverse as output.
9) Write a PHP script to compare two variables using equality operator and identity operator.

10) Write a script to check if the input string consists of lowercase characters only.
11) Write a PHP script that checks if a string contains another string.
12) Write a PHP script to remove whitespaces from a string.
   Sample string : The quick brown fox
   Expected Output : Thequickbrownfox

13) Write a PHP script to replace the first 'the' of the following string with
   'That'. Sample : 'the quick brown fox jumps over the lazy dog'.
   Expected Output : 'That quick brown fox jumps over the lazy dog'.

14) Write a PHP script to check whether a string is palindrome or not? (A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam or nursesrun)
15) WAP to sort an array of numbers.
16) Create an array using a PHP script. Display the elements of this array in the form of a bulleted list.

   Sample: $color = array('white', 'green', 'red').

   Expected Output :   • white
                         • green
                         • red

17) Write a PHP code which creates an array of 5 names. Display the names which start with character "A".

18) Create an associative array to store marks in five subjects of a student, where key is subject name and value is marks in the subject. Display all keys and values. Also sort the array on the basis of the key.

19) Write a PHP script to explode a string delimited with ## into an array. Print each element of this array in the form of Array[index]= element.
   Sample String: hello ## this ## is ## php ## programming
   Expected Output: Array[0]=hello
                      Array[1]= this
                      Array[2]= is
                      Array[3]= php
                      Array[4]= programming

20) Create an HTML form with input elements: Name, Age, Address, Email and a submit button.

Write PHP scripts to perform following validations:
   a. Name, Age, Address should not be left blank
   b. Age should be greater than 18
   c. Address should contain "Delhi"
   d. Check whether the email entered is valid or not.

21) Write PHP scripts to
   a. Create a database "CollegeWebsite"
   b. create a table "User(username varchar(120), password varchar(10))" within database "CollegeWebsite".
   c. Create a login page, which asks the user for a username and password. On clicking submit, a welcome message should be displayed if the user is already registered (i.e. name is present in the database) otherwise an error message should be displayed.

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