

Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Master of Science (Computer Applications & Information Technology)
Semester: VI

Paper Code: CCCS621		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Web Application Development using PHP		
Unit		
Unit	Description	Weighting
I	<p>Introduction Introduction to Webpage, Website, Static and Dynamic Web, Client side & Server Side, Scripting Introduction to other server side languages Web server (IIS & Apache), HTTP & HTTPS protocol, FTP, ISP and its Services Web Hosting, Virtual Host, Multi-Homing Distributed Web Server Overview, Document Root.</p> <p>Introduction to PHP PHP configuration in IIS & Apache Web server Understanding of PHP.INI file, Understanding of PHP.htaccess file PHP Variable, Static & global variable, GET & POST method PHP Operator Conditional Structure & Looping Structure</p>	20%
II	<p>Array</p> <p>User Defined Functions: argument function, default argument, variable function, return function</p> <p>Variable Length Argument Function func_num_args, func_get_arg, func_get_args</p> <p>Variable Function Gettype, settype, isset, unset, strval, floatval, intval, print_r</p> <p>String Function: chr, ord, strtolower, strtoupper, strlen, ltrim, rtrim trim, substr,strcmp, strcasecmp, stripslashes, strpos, strstr, strpos, str_replace, strrev, echo, print, explode(), implode(), join(), md5(), str_split(),str_shuffle(), strcspn(), strpbrk(), substr_compare(), substr_count(),ucfirst(), ucwords()</p> <p>Math Function Abs, ceil, floor, round, fmod, min, max, pow, sqrt, rand, cos(),acos(), sin(), asin(), tan(), atan(),bindec(), decbin(), hexdec(),dechex(), is_finite(), is_infinite(),log(), base_convert(), deg2rad()</p> <p>Date Function Date, getdate, setdate, Checkdate, time, mktime, date_add(), date_create(), date_format(), gmdate(), localtime(), strftime(), strtotime(), strtotime(), gettimeofday(),</p> <p>Array Function Count, list, in_array, current,next, previous, end, each, sort,rsort, assort, arsort, array_merge, array_reverse, array_diff(), array_merge_recursive(), array_shift(), array_slice(), array_unique(), array_unshift(), array_keys(), array_key_exists(),array_push(), array_pop(), array_multisort(), array_search()</p> <p>Miscellaneous Function define, constant, include, require, header, die, exit</p> <p>File handling Function fopen, fread, fwrite, fclose,file_exists, is_readable,is_writable, fgets, fgets, file,file_get_contents, fputs, file_putcontents, ftell, fseek, rewind, copy, unlink, rename, move_upload_file</p>	20%
III	Handling form with GET & POST	

	<p>Cookies, Session, Server variable</p> <p>PHP GD Library</p> <p>PHP Regular expression</p> <p>Uploading file.</p> <p>Sending mail using mail()</p> <p>Sending mail using smtp()</p> <p>Working with MySQL using PhpMyAdmin</p> <p>PHP-MySQL Connectivity</p> <p>PHP-MySQL Functions</p> <p>mysql_connect,mysql_close,mysql_error,mysql_errno, mysql_select_db,mysql_query,mysql_fetch_array,mysql_num_Rows, mysql_affected_Rows,mysql_fetch_assoc,mysql_fetch_field ,mysql_fetch_object,mysql_fetch_row ,mysql_insert_id ,mysql_num_fields,mysql_result,mysql_tablename,mysql_list_tables, mysql_list_fields,mysql_field_type,mysql_db_name,mysql_db_query ,mysql_data_seek</p>	
IV	<p>PHP with OOPS</p> <p>Class, constructor, inheritance, serialize objects</p> <p>Database Handling with OOPS</p> <p>PHP with AJAX</p> <p>What is AJAX.</p> <p>How AJAX Works with PHP</p> <p>Working With Ajax as Background Process</p> <p>JQuery</p> <p>What is JQuery?</p> <p>How JQuery Works and How it is Created.</p> <p>Using JQuery with PHP</p> <p>Using XML and JSON</p> <p>Introduction to JSON</p> <p>Installation & Configuration</p> <p>Resource Types</p> <p>JsonSerializable</p> <p>JSON Functions: json_decode, json_encode</p>	20%
V	<p>Smarty Introduction</p> <p>Variable:</p> <p>Variables assigned from PHP</p> <p>Variables loaded from config files</p> <p>Variable Modifiers: capitalize, lower, upper, truncate, count_characters, count_words, date_format, nl2br, replace</p> <p>Built in Function:</p> <p>config_load, foreach, foreachelse, include, if,elseif, else, section, sectionelse</p> <p>Custom Functions:</p> <p>assign, counter, cycle, eval, fetch, html_checkboxes, html_image, html_options, html_radios, html_select_date, html_select_time, html_table</p> <p>Creating a PHP Based Web service.</p> <p>Working with SOAP</p> <p>Introduction to SOAP</p> <p>Installation & Configuration</p> <p>Predefined Constants</p> <p>SOAP Client</p> <p>SOAP Server</p> <p>Introduction to CMS</p> <p>Uses and Advantages of CMS</p> <p>Wordpress [Introduction &Installation]</p> <p>Joomla [Introduction &Installation]</p>	20%
Basic Text & Reference Books :-		
1.	Begging PHP 5 by Wrox.	
2.	Julie C. Meloni, PHP MySQL and Apache, SAMS Teach Yourself, Pearson Education.	
3.	Web Development using PHP – Bharat & Co. [ISBN No. : 978-93-81786-39-0]	

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Master of Science (Computer Applications & Information Technology)
Semester: VI

Paper Code: CCCS621			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Web Application Development using PHP			
Unit	Description	Total Marks	
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) PHP Programs. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) PHP Programs. (With Internal Option)	08	

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Paper Code: CCCS622		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Computer Network – II		
Unit		
Unit	Description	Weighting
I	The Data Link Layer- I Packet, Framing Techniques (Character Count, Byte Stuffing, Bit Stuffing), Error Control, Flow Control	20%
II	The Data Link Layer – II Error Detection and Correction Techniques (Single Bit Parity, Block Parity, Checksum, CRC Checksum, Hamming Code) An Unrestricted Simplex Protocol, A Simplex Stop-and-Wait Protocol, A Simplex Protocol for a Noisy Channel, Sliding Window Protocols	20%
III	The Medium Access Sublayer The Channel Allocation Problem, Static Channel Allocation in LANs and MANs, Dynamic Channel Allocation in LANs and MANs, Multiple Access Protocols, ALOHA, Carrier Sense Multiple Access Protocols	20%
IV	Network with OS (Linux) Ubuntu: date, ls, who, cal, ps, wc, cat, uname, pwd, mkdir, rmdir, cd, cp, rm, mv, diff, chmod, grep, sed, head, tail, cut, paste, sort, find, iwconfig, ifconfig, arp, rarp, traceroute, ping, hostname, ss & many more ...	20%
V	Network with OS (Windows) Windows: ipconfig, arp, msconfig, services.msc, event logger, advanced taskmanager, ping, nslookup, netstat, tracert, route, hostname, net, nbtstat, whois & Many more..	20%
Basic Text & Reference Books :-		
1.	Computer Networks 4th Edition - Andrew Tanenbaum	
2.	Computer Networking: A Top-Down Approach Featuring the Internet By James F.Kurose , Keith W.Ross	
3.	Data Communication & Networking 4th Edition By Behrouz A.Forouzan	

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Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	

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Paper Code: CCCS623	Total Credit : 04
Title of Paper: Practical Based on CCCS621	Total Marks : 70
Time : 3 Hrs	
<ol style="list-style-type: none"> 1. Write a PHP program to display “Hello World” Message on Screen. 2. Write a PHP program to display the today’s date and current time. 3. Write a PHP program to read the employee detail using form component. 4. Write a PHP program to display the Fibonacci series. 5. Write a PHP program to calculate sum of given number. 6. Write a PHP Program that will use the concept form. 7. Write a PHP program to send Mail from PHP Script. 8. Write a PHP Program for Create, Delete, and Copying file from PHP Script. 9. Write a PHP Program to Recursive Traversals of Directory. 10. Write a PHP Program to Validate Input Data. 11. Write a PHP Program to Upload File. 12. Write a PHP program to demonstrate the use of array. 13. Write a PHP program to prepare student Mark sheet. 14. Write a PHP program to generate the multiplication of matrix. 15. Write a PHP program to perform demonstrate the college Website. 16. Write a PHP program to add new rows in a Table. 17. Write a PHP program to modify the rows in a Table. 18. Write a PHP program to delete the rows in a Table. 19. Write a PHP program to fetch rows in a Table. 20. Develop an PHP application to make following Operation <ol style="list-style-type: none"> i. Registration of user. ii. Insert the details of user. iii. Modify the details. iv. Transaction Maintained like the use of session and cookies variable. 	

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Paper Code : CCCS623		Total Credit : 4	
Title of Paper: Practical Based on CCCS621		Total Marks : 70	
		Time : 3 Hrs	
Unit	Description		Total Marks
I	Q.1 (A) Viva – Voce	20	70
	Q.1 (B) Practical	50	

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Paper Code: CCCS624	Total Credit : 04
Title of Paper: Practical Based on CCCS622 and elective courses	Total Marks : 70
Time : 3 Hrs	
1. Hamming Code Implementation 2. Stop-and-Wait Protocol 3. Sliding Window Protocols 4. Checksum method 5. CRC Implementation	

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Paper Code : CCCS624		Total Credit : 4	
Title of Paper: Practical Based on CCCS622 and Elective Courses		Total Marks : 70	
		Time : 3 Hrs	
Unit	Description		Total Marks
I	Q.1 (A) Viva – Voce	20	70
	Q.1 (B) Practical	50	

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Paper Code: CCCS625	Total Credit : 04
Title of Paper: Project	Total Marks : 70
Time : 3 Hrs	
Guidelines for the Project	
<ul style="list-style-type: none">• Definition should ideally reflect current trends of IT industry and it should have a high application potential.• Project must be carried out by individual student• Coding standards should be followed meticulously. At the minimum, the code should be self documented, modular, and should use the meaningful naming convention.• Database design is mandatory. At least portions of code (preferably full code) are mandatory. Student may be asked to write the code related to the project during examination.• A report should be prepared for the project work which should be duly signed by the internal project guide and head of the college/department.	

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Paper Code : CCCS625		Total Credit : 4	
Title of Paper: Project		Total Marks : 70	
		Time : 3 Hrs	
Unit	Description		Total Marks
I	Q.1 (A) Viva – Voce	20	70
	Q.1 (B) Explanation of Project	20	
	Q.1 (C) Explanation of Code/Database	20	
	Q.1 (D) Documentation / Report	10	

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Paper Code: CECS612		Total Credit : 4
Title of Paper: Computer Graphics and Multimedia		Total Marks : 70
		Time : 3 Hrs
Unit		
	Description	Weighting
I	Overview of Computer Graphics System: A survey of Computer Graphics Over View of Computer Graphics System Video display devices Raster Scan and random scan system Input devices Hard copy devices	20%
II	Output Primitives and Attributes Drawing line, circle and ellipse generating algorithms Scan line algorithm Character generation – attributes of lines, curves and characters Two Dimensional Graphics Transformation Two dimensional geometric transformations Windowing and Clipping Clipping of lines	20%
III	Three Dimensional Graphics Transformation Three dimensional concepts – representations Polygon table, Quadric surfaces, Splines, Besier curves and surfaces Geometric and Modeling transformations Viewing Parallel and perspective projections.	30%
IV	Removal of Hidden Surfaces Visible surface detection methods Computer animation	10%
V	Multimedia Introduction, Definition, Multimedia Hardware, Multimedia Software, Multimedia Networking, Multimedia Application, Multimedia Environments, Multimedia Computer Components, Multimedia Standards, Multimedia PC. Overview of latest multimedia software	20%
Basic Text & Reference Books :-		
1.	Tay Vaughan, "Multimedia making it works", 4 th Edition Tata McGraw Hill Edition, 2000.	
2.	Hearn, D. and Pauline Baker, M., "Computer Graphics", 2nd Edition, Prentice Hall of India, 1995. Sections: 1.1-1.8,2.1-2.3,2.5,2.6,3.1-3.7,3.11,3.14,4.1,4.2,4.5,5.1-5.5,6.1-6.7,9.1,9.2, 10.1-10.4, 10.6-10.8, 11.1-11.7, 12.1,12.3, 13.1-13.9, 13.12, 16.1-16.6)	
3.	Neuman, W.M., and Sproull, R.F., "Principle of Interactive Computer Graphics", McGraw Hill BookCo., 1979.	

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Paper Code: CCCS612			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Computer Graphics and Multimedia			
Unit	Description	Total Marks	
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	

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Paper Code: CECS613		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Software Engineering		
Unit		
	Description	Weighting
I	Introduction Introduction : Software and Software Engineering General Characteristics of Software Process Phases in Software development Effort and Error Distribution Process Models : Waterfall, Prototype, Iterative enhancement, spiral Software metrics : introduction, product metrics, process metrics	20%
II	Requirement Specification and Software Project Planning Introduction : Software Requirement Specification (SRS) and Needs Problem Analysis - Structuring Information Introduction to UML Software Requirement Specifications (SRS), Characteristics and Components of SRS Specification language (Structured English, Regular Expression and Decision Table) Structure of SRS, Validation of SRS	20%
III	Introduction: Software Projects, Planning, Categories of Software projects Overview of Cost estimation, Uncertainty in cost estimation, size estimation, COCOMO Model (with example) Project Monitoring Plan : Time sheets, Reviews, Cost- schedule milestone and Earned value method Software Quality Assurance Plans (SQAP) Overview of Risk Management Software Design Introduction : System Design Design Objectives and Design Principles Design Concepts - Top down and Bottom up approach, Problem Partition, Abstraction, Modularity, Module Level concept, Coupling, Cohesion	20%
IV	Overview of structured design Function v/s Object Oriented approach Design Specification, Verification Introduction: Detailed Design Module Specification, Desirable properties, functional module specification, Data abstraction specification PDL, Logic/ Algorithm Design Design Verification – Design Walkthrough, Critical Design review, Consistency checkers	20%
V	Coding and Testing Introduction: Coding, Top Down and Bottom Up approach for coding Structured programming, Information Hiding Programming style, Internal documentation	20%
Basic Text & Reference Books :-		
1.	An Integrated Approach to Software Engineering : By Pankaj Jalote, Narosa Publishing House, Second Edition,1997	
2.	Software Engineering a practitioner's approach : By Roger S. Pressman, Tata McGraw-Hill, 5 th Edition	
3.	Software Engineering Fundamentals, By Richard Fairley, Tata McGraw Hill	
4.	Software Engineering By Ian Sommerville, Addition- Wesley, 5th Edition, 2000	

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Paper Code: CCCS613			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Software Engineering			
Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
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	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
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	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	