CBCS SCHEME

USN | | | | | | | | | | |

17CS71

Seventh Semester B.E. Degree Examination, Jan./Feb.2021
Web Technology and Its Applications

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. What are the 3 aims of HTML5? **(04 Marks)**

b. Explain the need of cascade in CSS. Explain the 3 principles of cascade with suitable CSS script segments. **(08 Marks)**

c. Explain two types of URL referencing techniques with suitable scripts in HTML5. **(08 Marks)**

OR

2 a. List and explain the different selectors available in CSS. **(08 Marks)**

b. Discuss the HTML5 semantic structure elements. **(08 Marks)**

c. List the different text properties with a description. **(04 Marks)**

Module-2

3 a. Explain different form widgets created with the <input> tag. **(08 Marks)**

b. Write HTML code for following table:

Day	SEMIENAR		
	SCHEDULE		TEOPIC
	BEGIN	END	
MONDAY	8:00 am	5:00 pm	Introduction to XML
			Validity : DTD & NG
TUESDAY	11:00 am	2:00 pm	XPAT4
	11:00 am	2:00 pm	
	2:00 pm	5:00 pm	XSL transformations
WEDNESDAY	8:00 am	5:00 pm	XSL Formatting Objects

(12 Marks)

OR

4 a. Explain liquid layout design for websites with an example. List the fluid layout benefits and limitations. **(08 Marks)**

b. Explain different ways of positioning elements in CSS layout techniques. **(08 Marks)**

c. What are the importances of responsive design? Explain briefly. **(04 Marks)**

Module-3

5 a. Write a Javascript code that displays text "CORONA VIRUS" with increasing font size in the interval of 100 ms in blue color, when font size reaches 50 pt in teal color and should stop. **(08 Marks)**

b. Explain the advantages and disadvantages of client side scripting. **(06 Marks)**

c. With suitable diagram, explain APACHE modules in PHP. **(06 Marks)**

OR

6 a. With suitable code segment, explain 2 approaches for event handling in Java script. **(08 Marks)**

b. Write PHP program to greet the user based on time. **(08 Marks)**

c. Explain 2 methods in Java Script to access DOM nodes with examples. **(04 Marks)**

Module-4

7 a. List and explain different superglobal arrays. **(08 Marks)**

b. Explain the different error handling methods, with suitable code segments. **(08 Marks)**

c. How do you read or write file on server from PHP? Give example. **(04 Marks)**

OR

8 a. Write a PHP program to create a class Employee with the following specifications:
Data members : Name, ID, Payment.
Member function : Read (geTters) and write (setters)
Use the above specification to read and print the information of 10 students. **(08 Marks)**

b. Explain the support for inheritance in PHP with UML class diagram. **(06 Marks)**

c. Explain 3 approaches to restrict file size in file upload with suitable code segments. **(06 Marks)**

Module-5

9 a. Explain different types of caching used to improve performance of web application. **(08 Marks)**

b. With suitable PHP script, explain loading and processing an XML document in Java script. **(08 Marks)**

c. Explain creating and reading cookies with suitable PHP scripts. **(04 Marks)**

OR

10 a. Define AJAX. Expalin AJAX request by writing UML diagram. **(08 Marks)**

b. Explain JavaScript pseudo-classes with examples. **(08 Marks)**

c. Explain converting a JSON string to JSON object in JavaScript with suitable code segments. **(04 Marks)**

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Subject Title : WEB TECHNOLOGY & ITS APPLICATIONS **Subject Code :** 17CS71

Question Number	Solution	Marks Allocated
1. a)	The 3 main aims of HTML5 are:- * Invalid mark up * nonproprietary framework * Backward Compatibile.	[4M]
b)	Cascade in CSS refers to conflicting rule precedence of child elements → (1.5M) — 2 * 3 principles of Cascade are:- → (4.5M) — 4 Inheritance, Specificity, location → brief explaination * Script segment — (2M)	[8M]
c)	URL referencing tech are:- (4M) ↳ Relative referencing ↳ Absolute Referencing HTML 5 script Code → (4M)	[8M]
2. a)	Selectors :- Element, class, Id, Attribute, Psendo, Contextual → Explaination in brief. — (2M) (6M)	[8M]
b)	HTML5 semantic structure Elements: (1x8M) * Header, Footer, Heading Groups, Navigation, Articles, Sections, Figure & FigCaption, Aside → Explain in brief	[8M]
c)	The Text properties are :- Word-spacing (1M x 4) text-decoration, text-align, letter-spacing, text-transform	[4M]
3. a)	Form Widgets created with <input> are:- text, textarea, password, Search, Email, tel, URL. Simple Code → (1M x 8)	[8M]
b)	HTML Code to create a table	

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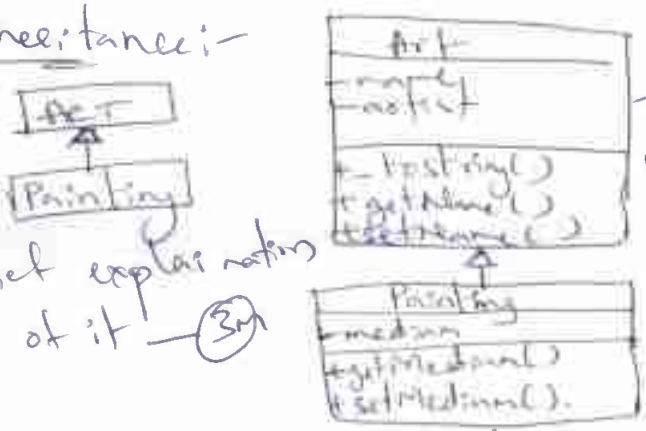
Question Number	Solution	Marks Allocated
	<BODY> <TABLE CAPTION=" " Border="1"> [12M] <TR> <TH ROWSPAN="3"> DAY </TH> <TH COLSPAN="3"> Seminar </th></TR> <TR> <TD COLSPAN="2"> SCHEDULE </TD> <TD rowspan="2"> TOPIC </TD></TR> <TR> <TD> BEGIN </TD> <TD> END </TD> </TR> <TR><TD> MONDAY </TD> <TD> 8:00AM </TD> <TD> 5:00 pm </TD> <TD rowspan="2"> XML <TD> — — — — — Complete the CODE.	
4.a)	Explanation for liquid layout layout design with Code. — (4M) * Benefits :- i) adapts to diff browser size (2M) [8M] ii) No white space & scroll. * Limitations :- i) Difficult to create (2M) ii) Screen grows or shrinks dramatically	
b)	Different ways of positioning Elements are;- * Relative Positioning. * Z-index (2M X 4) Explain in brief [8M] * Absolute " * Fixed Position	
c)	Importance of Responsive Design [4M] ↳ Liquid Layouts ↳ Scaling → (4) ↳ Setting viewport ↳ Media Queries	

5. a)	[8M]
	fs to display "CORONA-VIRUS".
	fun inTimer() —— (4M) fun deTimer() (4M)
	{ ids.innerHTML="CORONA-VIRUS";
	ids.setAttribute('style', "font-size: "+fs+"px; color: teal");
	fs += 5;
	if (fs >= 50) { clearInterval(var1);
	var2 = setInterval(deTimer, 1000);
	}	

Question Number	Solution	Marks Allocated
5. b)	**Advantages:-** (4) * Reducing load on servers * Improves User performance * Interaction **Disadvantages** (4) * No guarantee * idiosyncrasies * Debug & Maintain.	6M [8M]
c)	With diagram, Explanation of (2M) APACHE module in PHP. (2M)	6M [8M]
6. a)	There are 2 approaches of Event handling * Inline Event Handler * Listener Approach. Eg:- <script type="text" src="listener.js"></script> <form name="Mainform"> <input type="name" type="text"> (4M) </form> greetingBtn.addEventListener('click', alert("Good Morning")); (4M)	[8M]
b)	PHP program to greet user based on time ↳ Good Morning ↳ Good Afternoon ↳ Good Even.	[8M]
c)	2 Methods :- getElementById() → role, example [4M] getElementByTagName() → " (2+2M)	[4M]
7. a)	SuperGlobal Arrays are :- (1M×8) $_COOKIES, $_ENV, $_FILES, $_GET, $_POST, $_REQUEST, $_SERVER	[8M]
b)	Error Handling Methods :- (4M) (4M) * Procedural Error Handling * Obj. Oriented Exception Hand. Code:- try { $conn = mysqli_connect("DBHost", --) catch(Exception $e) { echo "Caught " . $e->getMessage() finally { - - - - } }	[8M]
c)	There are 2 tech :- 1) Stream access read/write file 2) All-in-mem (2M)	

Question Number	Solution	Marks Allocated
7.c)	CODE:- `$f=fopen("sample.txt","r");` `$ln=0;` `while($line=fgets($f)){ $ln++; printf("%2d:",$ln); echo $line," "; } fclose($f);` (2M)	[4M]
8.a)	PHP prog to create class Employee. `class EMPLOYEE { private $name; private $ID; private $pay; function __construct($fn,$id,$pay) { $this->setName($fn); ---- } public function getName() { return $this->name; } ---- public function setPayment($pay) { $this->pay=$pay; } ---- }` → Create a Data for 10 Employees.	[8M]
b)	Inheritance:-  (3M) UML class diagram. Brief explanation of it (3M)	[6M]
c)	3 approaches to restrict file size are:- (3M) ✱ HTTAL in the i/p form ✱ JS in the i/p form ✱ PHP Coding } Explain (3M)	[6M]
9.a)	Types of caching are :- → Page o/p caching. → Application Data caching.	

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Question Number	Solution	Marks Allocated
9. a)	* Page o/p caching < { full page caching, partial " " } (2x4M) * Application Data Caching	[8M]
b)	With code — (4M) Explaination for loading & processing of XML — (4M) → In-memory approach → pull approach	[8M]
c)	Creating & reading cookie ⇒ setCookie( ); $_COOKIE['username']; (2M) Eg:- setCookie($name, $v, $expdate); echo $_COOKIE['username']; } — (2M)	[4M]
10. a)	AJAX is a Asynchronous JavaScript with XML which allows a browser to send message. (2) Give the UML Diagram of AJAX request (6)	[8M]

b)	Explain the JS pseudoclass. — (4M)
	eg:- function Die(col) { this.color = col; — (4M)
	this.faces=[1,2,3,4,5,6];
	this.randRoll = function() {
	var randN = Math.floor - - - ;
	return faces[randN-1]; };
	}.
		[8M]

c)	Explaination to convert JSON String to JSON Object (2) eg:- <?php text = {"artist":{"name":"foo", "CellNo":'9922334455'} }'; (2M) $anObj = json_decode($text); echo $anObj→artist→CellNo; $array = json_decode($text, true); echo $array['artist']['CellNo']; ?>	[4M]

*** END ***