

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SIXTH SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2018

**Course Code: CS368**

**Course Name: WEB TECHNOLOGIES**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

		Marks
1	List out the roles of web servers in web technology.	(3)
2	Write the syntax of URL? Explain with one Example?	(3)
3	What are the advantages of a Content Management System?	(3)
4	Explain the different types of buttons in HTML	(3)

**PART B**

*Answer any two full questions, each carries 9 marks.*

5	a) What is CGI? How does it work? How do web server and CGI program communicate?	(5)
	b) What do you mean by MIME?	(4)
6	a) Write notes on headings and block quotations.	(4)
	b) Give syntactic differences between HTML and XHTML.	(5)
7	a) Write HTML code to design a web page to create a table with 6 rows and 3 columns for entering the mark list of 5 students. Assume suitable headings for each column.	(4)
	b) Explain the request and response phases in HTTP?	(5)

**PART C**

*Answer all questions, each carries 3 marks.*

8	What do you mean by "class" and "id" in CSS? Explain with example?	(3)
9	How to link an external style sheets to an HTML document? What are the attributes required for that?	(3)
10	What are the different methods by which we can convert a string to a number in JavaScript?	(3)
11	Does jQuery helps in writing javascript code. Justify your answer	(3)

**PART D**

*Answer any two full questions, each carries 9 marks.*

12	a) What is bootstrap? What is the advantage of using bootstrap?	(4)
	b) Write CSS code for the following:	(5)
	i) set the background color for the hover and active link states to "yellow".	
	ii) Set the list style for unordered lists to "square".	
	iii) Set "Flower.gif" as the background image of the page	
	iv) Set dashed border for the document.	

- 13 a) Differentiate between <span> and <div> tags with examples. (4)  
b) Explain various String properties and methods present in JavaScript. (5)
- 14 a) Write a JavaScript program to find the factorial of a number. (4)  
b) Write a JavaScript code to solve a quadratic equation by reading the coefficients through dialog box. Also use confirm dialog box to check whether user wants to continue or not. (5)

**PART E**

*Answer any four full questions, each carries 10 marks.*

- 15 a) Explain XML document structure? (5)  
b) What is the requirement of XML Schema? Explain. (5)
- 16 a) Explain simple and complex data types in XML with suitable example? (10)
- 17 a) How XSLT style sheets can be used to control page layout in XML? (5)  
b) Differentiate between JSON and XML? (5)
- 18 a) What are the different ways to create an array in PHP? Explain with example? (4)  
b) What is server side scripting? Write a PHP program to check whether the given number is Armstrong or not? (6)
- 19 a) How can we declare attributes of an element in DTD? (5)  
b) Design an HTML form for entering a number by the user. Write a PHP code to display a message indicating, whether the number is odd or even, when clicking on the submit button. (5)
- 20 a) Write a PHP script to count the instances of words in a string? (5)  
b) What is the significance of cookies in web? How can a cookie be created and destroyed in PHP? (5)

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**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**SIXTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MAY 2019**

**Course Code: CS368**

**Course Name: WEB TECHNOLOGIES**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

Marks

- |   |  |     |
|---|--|-----|
| 1 | Why do you call MIME as an extension feature? Justify with suitable statements.                  | (3) |
| 2 | Why is XHTML preferred over HTML?  | (3) |
| 3 | What is the role of query string in web communication? Write an example for a query string.      | (3) |
| 4 | How can you differentiate header row and data rows in an HTML table? Illustrate with an example. | (3) |

**PART B**

*Answer any two full questions, each carries 9 marks.*

- |   |   |     |
|---|---|-----|
| 5 | a) Describe the structure of an HTML document with an example. Give description for the major tags used.  | (5) |
|   | b) What is the difference between web servers and browsers in the context of their implementation and functionality?  | (4) |
| 6 | a) What is a CGI? Explain the communication process in CGI.   | (5) |
|   | b) How can you give an alternate text for an image so that text is displayed when the image cannot be loaded? Show with an example.   | (4) |
| 7 | a) Describe the situations in which POST method is preferred and why?   | (4) |
|   | b) Design a table in HTML to display the marks of 5 students for 3 subjects. Student name should be the row headings and subject name should be the column headings. Marks can be of your choice. | (5) |

**PART C**

*Answer all questions, each carries 3 marks.*

- |    |   |     |
|----|---|-----|
| 8  | What is the speciality of pseudo selectors compared to other selector forms?                | (3) |
| 9  | What is a callback function in JavaScript? State how it is different from normal functions. | (3) |
| 10 | How does jQuery enhance the ease of JavaScript code implementation, explain?                | (3) |
| 11 | What are the different ways of adjusting spacing in a text? Explain the various             | (3) |

style attributes used for that.

#### PART D

*Answer any two full questions, each carries 9 marks.*

- 12 a) Write CSS code for setting the following styles (6)
- i) Table - A header row with background colour and bold font and other rows without that.
  - ii) Unordered list – Set a smiley image as bullet.
- b) What is the difference between JavaScript primitives and objects in the context of how they are stored in memory? (3)
- 13 a) Write a JavaScript program to implement various mathematical operations. Input should be prompted for and confirmation should be asked before proceeding to next operation. (5)
- b) What are the advantages of using a CSS framework? Explain the features of Bootstrap in relation to the above answer. (4)
- 14 a) External style sheets are usually preferred over other kinds of style sheets. Why? (4)
- b) Illustrate with suitable code samples, the different ways of Array declaration in JavaScript. Arrays in JavaScript are said to be more flexible, why? (5)

#### PART E

*Answer any four full questions, each carries 10 marks.*

- 15 a) Describe the schema of a document implemented in JSON and state how it is different from XML schema. (6)
- b) What are the primitives supported by PHP? (4)
- 16 a) Differentiate between simple and complex data types in XML. (4)
- b) Design a simple HTML form to input a string and to display whether it is palindrome or not when the form is submitted. Use a PHP script. (6)
- 17 a) List the various data types used in JSON. (5)
- b) What are the contexts in which session tracking can be helpful? (5)
- 18 a) How does the use of cookies help in server-side scripting? Give examples for data stored using cookies. (5)
- b) How can CSS be used to display a XML document? Illustrate with an example. (5)
- 19 a) Design an XML document containing details about four students. Student attributes can be added as per your choice. (5)
- b) Write a PHP script to search for a particular string pattern in a text. (5)
- 20 a) Illustrate with a sample PHP script, how functions are implemented in PHP. (5)

- b) What is the role of DTD in an XML document? Illustrate with an example. (5)

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**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**SIXTH SEMESTER B.TECH DEGREE EXAMINATION(S), DECEMBER 2019**

**Course Code: CS368**

**Course Name: WEB TECHNOLOGIES**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

Marks

- |   |   |     |
|---|---|-----|
| 1 | Differentiate between block tags and inline tags. Which tag preserves the white spaces in its content? Illustrate with suitable examples.   | (3) |
| 2 | What is a MIME type? Give examples. Why should MIME type information be essentially included in HTTP responses?   | (3) |
| 3 | Write the equivalent HTML code to implement the following in a web page:<br>(i) An image titled "birds.jpg" with a height of 100 pixels and width of 200 pixels. If the image cannot be accessed, a message "No image available" should be displayed<br>(ii) A hyperlink to the URL "www.mysite.com/birds.jpg". The hyperlink should have the label "Click Here". | (3) |
| 4 | Mention any three HTTP methods. Provide a brief description about the functionality of each.  | (3) |

**PART B**

*Answer any two full questions, each carries 9 marks.*

- |   |   |     |
|---|---|-----|
| 5 | a) What is the utility of Common Gateway Interface (CGI) in the web? Describe its method of operation.  | (5) |
|   | b) Write down any four HTML tags and their purpose with suitable examples. What are tag attributes?   | (4) |
| 6 | a) What is the difference between radio buttons and checkboxes when implemented using HTML? Write HTML code to implement a form which has the following elements:<br>i. A textbox which can accept a maximum of 25 characters.<br>ii. Three radio buttons.<br>iii. A selection list containing four items, two which are always visible.<br>iv. A submit button, clicking on which will prompt the browser to send the form | (5) |

data to the server “http://responses.mysite.com” using “POST” method.

You can use any text of your choice to label the form elements.

- b) Write brief notes on the method of operation of web servers. What is stored in the document root and server root folders of a web server? (4)
- 7 a) Write down the general format of an HTTP request and an HTTP response. What is the purpose of the following HTTP headers? Also, identify whether they are included with an HTTP header/response or both. (4)
- i. host ii. last-modified
- b) Differentiate between “rowspan” and “colspan” table attributes. Write HTML code to create a table whose structure is as below: (5)


Insert any text of your choice in the table cells. The first row is considered to be containing a heading. The background colour for the table should be red, and the text in the cells should all be centre aligned.

### PART C

*Answer all questions, each carries 3 marks.*

- 8 Differentiate between the action of span and div tags with suitable examples. (3)
- 9 List three methods for creating an array object in JavaScript. What function does the array methods join() and slice() perform? (3)
- 10 Write CSS style rules to implement the following in a web page: (3)
- a. to display the content of hyperlinks with yellow background colour and in italics
- b. to display the contents of unordered lists in bold and in Arial font
- c. to display a background image titled “birds.jpg” with no tiling.
- 11 What is meant by DOM? How is it useful for JavaScript scripts? (3)

### PART D

*Answer any two full questions, each carries 9 marks.*

- 12 a) Discuss the various CSS style sheet levels with suitable examples. How are conflicts resolved when multiple style rules apply to a single web page element? (4)
- b) How are event handlers registered in JavaScript? Write the code for an HTML document with embedded JavaScript scripts, which initially displays a paragraph with text “Welcome” and a button titled “Click”. When the button is clicked, the

message “Hello from JavaScript” in bold should replace the paragraph text.

- 13 a) Distinguish between descendant selectors and child selectors in CSS. If there is a style rule given by `body p { color : red; font-family : courier; }` and another style rule `body > p { color : green; }`, what styles will apply to the content of a paragraph in the web page body? (4)
- b) Give a brief overview of the syntax used in JQuery with suitable examples. List some of the selector types used in JQuery. (5)
- 14 a) What are class selectors in CSS? Suppose that it is required to display the text content of p tags in two different styles depending on the context. (5)
- Style 1 – text should be displayed in blue colour, right aligned, underlined, with font style of italics and spacing between the words of text set to 2 cm.
- Style 2 – text should be displayed with a background colour of yellow, having a dashed, blue colour border, and with a padding of 1.5 cm
- Write the equivalent CSS style rules.
- b) What are the output statements provided by JavaScript? Write embedded JavaScript code which displays a dialog box that prompts the user to enter a string. The script should then concatenate the string after the string “Hello ” and then print the result 5 times in in italics one below the other in the web page. (4)

### PART E

*Answer any four full questions, each carries 10 marks.*

- 15 a) What is the function of cookies? Explain why session tracking is sometimes a better alternative to using cookies. (5)
- b) How is XML different from HTML? What is meant by the term namespace in the context of XML? (5)
- 16 a) During the process of fetching a web page from a web server to a client browser, at what point does an embedded PHP script get executed? Can a client see the PHP script in the retrieved page? How does this differ from JavaScript script execution? (3)
- b) What are the two modes that the PHP processor operates in? Explain. (2)
- c) What is meant by a DTD? Create a DTD for a catalogue of cars, where each car element has the child elements make, model, year, colour, engine, doors. The engine element has the child elements no\_of\_cylinders and fuel\_type. (5)
- 17 a) How is the type of a variable determined in PHP? Distinguish between bound (3)

- and unbound variables. How can a variable be tested to check whether it is bound?
- b) What is the purpose of the `explode()` and `implode()` functions in PHP? Illustrate with suitable examples. (2)
- c) What are the benefits of XML schema over DTDs? Discuss, with examples, the various user defined data types permissible for XML schemas. (5)
- 18 a) Write an embedded PHP script which displays the factorial of all numbers from 1 to 10 in a table in the web page. The factorial should be calculated and returned from a function. The table headings should be “Number” and “Factorial”. (5)
- b) Write notes on entities in XML. State the format for declaring external entities (text and binary) in a DTD. (5)
- 19 a) What are associative arrays? How are associative arrays declared in PHP? Illustrate with an example. (2)
- b) Briefly describe, with suitable examples, the various methods for iterating over the contents of a PHP array. (3)
- c) What is the purpose of XSLT style sheets? Suppose that an XML document contains a root element named `students` which has a child element `student`. Each `student` element has the child elements `name`, `roll_no` and `branch`. Suppose that there are 5 instances of the `student` element. Write an XSLT style sheet to display the student data as an HTML document. (5)
- 20 a) What is the purpose of the implicit arrays `$_POST` and `$_GET` in PHP? Consider that a web page displays a form containing two text boxes (named `num1` and `num2`), where the user enters numeric data. Write a PHP script which collects this form data, finds the sum, difference and the product of the two numbers and then displays the same with suitable messages. Assume that the script is to be embedded in the web page specified by the action attribute of the form and that the method used when the form is submitted is GET. (5)
- b) Can CSS be used to display an XML document? Illustrate with an example. (5)

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**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
Sixth semester B.Tech degree examinations (S), September 2020

**Course Code: CS368**

**Course Name: WEB TECHNOLOGIES**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

Marks

- 1 Write the syntax of URL with suitable example. (3)
- 2 What is the significance of HTTP? (3)
- 3 Write an HTML code to display the following table. (3)

Flower Show	
Flower Name	Colour
Red Rose	Red
White Rose	White
Jasmine	

- 4 Explain any six differences between HTML and XHTML? (3)

**PART B**

*Answer any two full questions, each carries 9 marks.*

- 5 a) What is CGI? How does it work? (5)
- b) Write brief notes on the method of operation of web servers. What is stored in the document root and server root folders of a web server? (4)
- 6 a) What is MIME type? Give examples. Why should MIME type information be essentially included in HTTP responses? (3)
- b) Write an HTML code to display your class time table? (6)
- 7 a) Write the equivalent HTML code to implement the following in a web page: (3)
- 1) An image titled "flower.jpg" with proper attribute to set height, width and message text.
- 2) Unordered list with values tea, coffee and milk
- b) Explain following html tags with proper example. (Any Four) (4)
- 1.<input> 2. <img> 3.<dl> 4.<form> 5.<a>
- c) Differentiate between block tags and inline tags with suitable examples. (2)

**PART C**

*Answer all questions, each carries 3 marks.*

- 8 Write a JavaScript program to read an integer value using prompt and display its square? (3)
- 9 Write about CSS Box model with neat diagram? (3)
- 10 What is the syntax of JavaScript and Why JavaScript is enclosed in HTML comments? (3)
- 11 Explain how to control spacing in between text, words and lines with proper examples (3)

**PART D**

*Answer any two full questions, each carries 9 marks.*

- 12 a) Discuss various types of control statement in JavaScript? (4)
- b) How to link an external style sheets to an HTML document? Describe the various attributes used? (3)
- c) JavaScript is known as object-based language. Justify your answer? (2)
- 13 a) Write CSS code for the following: (4)
- i) set the background color for the hover and active link states to "yellow".
  - ii) Set the list style for ordered lists to "lower case alphabet".
  - iii) Set "Boat.gif" as the background image of the page.
  - iv) Set dotted border for the document.
- b) What is a selector in CSS? What do you mean by contextual selector and where it is used? (3)
- c) Explain following tags with proper example? (2)
1. <span> 2. <div>
- 14 a) What is client-side scripting? Write a JavaScript program which accepts N as input and print first N even numbers. (5)
- b) Explain how to create objects in JavaScript with example? (4)

**PART E**

*Answer any four full questions, each carries 10 marks.*

- 15 a) How to do pattern Matching in PHP? (4)
- b) Write a PHP script to count the instances of words in string? (6)
- 16 a) Differentiate between simple and complex data types in XML. (4)

- b) What are the different ways to create array in PHP? Explain with example? (4)
- c) List out any 4 string functions in PHP? (2)
- 17 a) What do you mean by an XML namespace? Explain it? (4)
- b) What is the difference between sort, assort and ksort functions? (3)
- c) List out some XML applications? (3)
- 18 a) Design an XML document containing details about four students. Student attributes can be added as per your choice. (5)
- b) Explain XSLT style sheet with example? (5)
- 19 a) Design a simple HTML form to input a string and to display whether it is Armstrong or not when the form is submitted. Use a PHP script. (5)
- b) What is the significance of cookies in web? How can a cookie be created and destroyed in PHP? (5)
- 20 a) Differentiate between XML schema and DTD. (5)
- b) Create a DTD for a catalogue of cars, where each car element has the child elements make, model, year, colour, engine and doors. The engine element has the child elements no\_of\_cylinders and fuel\_type. (5)

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