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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech.

SEM: V - THEORY EXAMINATION (2022 - 2023)

Subject: Web Technology

Time: 3 Hours   Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A   20

1. Attempt all parts:-

1-a.   Combination of text, multimedia and hyperlink is called.[CO1]   1

           (a) Hypermedia

           (b) Hypertext

           (c) Hypertext Transcript Protocol

           (d) Dynamic Website

1-b.   A web server is a [CO1]   1

           (a) High end machine serving clients

           (b) Set of web clients

           (c) Web Protocol

           (d) Web Communication standard

1-c.   In HTML discuss and define the role of DOM.[CO2]   1

           (a) Language dependent application programming

           (b) Hierarchy of objects in ASP.NET

           (c) Application programming interface

(d) Convention for representing and interacting with objects in html documents

1-d.   When to use a SAX Parser?[CO2]   1

      (a) You can process the XML document in a linear fashion from the top down.

      (b) You are processing a very large XML document whose DOM tree would consume too much memory.

      (c) The problem to be solved involves only part of the XML document

      (d) All of the above.

1-e.   Select property used to change the text color of an element?[CO3]   1

      (a) fontcolor:

      (b) textcolor:

      (c) textcolour:

      (d) color:

1-f.   Inline styles are written within the _____ attribute.[CO3]   1

      (a) style

      (b) css

      (c) stylesheet

      (d) Both A. and B.

1-g.   Does JavaScript allow exception handling?[CO4]   1

      (a) Yes, it provides try, catch as well as throw key word for exception handling

      (b) Yes, but it provides only try block

      (c) Yes, but it provides only Try catch block, but does not allow throw exception

      (d) no

1-h.   The statement a===b refers to _____.[CO4]   1

      (a) Both a and b are equal in value, type and reference address

      (b) Both a and b are equal in value

      (c) Both a and b are equal in value and type

      (d) There is no such statement

1-i.   Variable name in PHP starts with .[CO5]   1

      (a) ! (Exclamation)

      (b) $ (Dollar)

      (c) & (Ampersand)

(d) # (Hash)

1-j.   Which of the following is the use of strlen() function in PHP?[CO5]   1

        (a) The strlen() function returns the type of string

        (b) The strlen() function returns the length of string

        (c) The strlen() function returns the value of string

        (d) The strlen() function returns both value and type of string

2. Attempt all parts:-

2.a.   Explain three-Tier web architecture.[CO1]   2

2.b.   Briefly describe DTD in XML?[CO2]   2

2.c.   Define Bootstrap Container, and how does it work?[CO3]   2

2.d.   Is java script a statically typed or a dynamically typed language? Explain it.[CO4]   2

2.e.   Discuss the characteristics of PHP variables.[CO5]   2

<div align="center">SECTION B   30</div>

3. Answer any <u>five</u> of the following:-

3-a.   List and discuss the factors which makes a website search engine friendly.[CO1]   6

3-b.   Draw and explain Client-Server architecture. What is Transparency.[CO1]   6

3-c.   Create HTML form for Registration of a student in college?[CO2]   6

3-d.   Explain XML schema and discuss various types ways to define xml schema with   6
        example.[CO2]

3.e.   Differentiate between Inline, Internal and External CSS.[CO3]   6

3.f.   Explain Function constructor in Javascript with example.[CO4]   6

3.g.   Discuss the function that is used for deleting a directory in PHP.[CO5]   6

<div align="center">SECTION C   50</div>

4. Answer any <u>one</u> of the following:-

4-a.   Explain the term Search Engine Optimization with related examples.[CO1]   10

4-b.   Elaborate different types of Web Hosting packages ?[CO1]   10

5. Answer any <u>one</u> of the following:-

5-a.   Create and save an XML document at the server which contains 10 users information. Write   10
        a program, which takes user Id as an input and returns user details by taking user information
        from the XMl document.[CO2]

5-b.   Design an internal and external DTD with the help of suitable example.[CO2]   10

6. Answer any <u>one</u> of the following:-

6-a.   Explain why to choose bootstrap for building the website?[CO3]   10

6-b.   Create a webpage which displays "Hello World" with font size 20 pixels, bold format, in   10
          "Times New Roman" font and green in color using inline CSS, embedded CSS and external
          CSS.[CO3]

7. Answer any <u>one</u> of the following:-

7-a.   Explain object-based concept in JavaScript. Justify your answer.[CO4]   10

7-b.   Develop a simple online shopping application using JavaScript.(Assume your own   10
          data).[CO4]

8. Answer any <u>one</u> of the following:-

8-a.   How can we create a database using PHP and MySQL?[CO5]   10

8-b.   Explain in detail about session control in PHP?[CO5]   10