

Printed Page:-

Subject Code:- ACSBS0612

Roll. No:

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VI - THEORY EXAMINATION (20 - 20.....)

Subject: Modern Web Applications

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. A software that searches through a database of web pages for particular information is known as : (CO1, K1) 1
- (a) Internet
- (b) Search Engine
- (c) Website
- (d) Protocol
- 1-b. The first Internet search engine is known as (CO1, K1) 1
- (a) Archie
- (b) Google
- (c) Bing
- (d) Yahoosearch
- 1-c. The symbol used at the beginning of the HREF text is (CO2, K1) 1
- (a) @
- (b) &
- (c) \$
- (d) #
- 1-d. CSS property and value is used to center an element. (CO2, K1) 1
- (a) text-align:center
- (b) align:center

- (c) text-align:middle
(d) align:middle
- 1-e. The "function" and " var" are known as: (CO3, K1) 1
(a) Keywords
(b) data types
(c) Declaration statements
(d) Prototypes
- 1-f. _____ method to get element by its ID: (CO3, K1) 1
(a) querySelector()
(b) getElement()
(c) getElementById()
(d) fetchById()
- 1-g. jQuery event triggered when an element is clicked: (CO4, K1) 1
(a) hover()
(b) click()
(c) mousedown()
(d) keydown()
- 1-h. Use of parent() method: (CO4, K1) 1
(a) Select previous sibling
(b) Select parent element
(c) Select first child
(d) Select inner content
- 1-i. Format typically used for RESTful request and response messages (CO5, K1) 1
(a) JPEG
(b) HTML
(c) JSON
(d) EXE
- 1-j. Component of HTTP request that indicates the HTTP method (CO5, K1) 1
(a) Request line
(b) Header
(c) Body
(d) Response
2. Attempt all parts:-
- 2.a. Differentiate between the different types of websites. (CO1, K2) 2
- 2.b. Explain attributes and control of HTML form element. (CO2, K2) 2
- 2.c. Discuss the role of break and continue statements. (CO3, K2) 2
- 2.d. Describe deep linking in Angular JS. (CO4, K2) 2

2.e.	Explain format of a URI in REST architecture. (CO5, K2)	2
SECTION-B		30
3. Answer any <u>five</u> of the following:-		
3-a.	Explain web services & its components. (CO1, K2)	6
3-b.	Describe the three-tier architecture model and its benefits in web applications. (CO1, K2)	6
3-c.	Discuss a CSS style specification rule that would make all unordered lists (tags) have square bullets and a purple background. (CO2, K2)	6
3-d.	Explain ROWSPAN , COLSPAN, CELLPADDING and CELLSPACING tags of HTML with example. (CO2, K2)	6
3.e.	Discuss the ways to define a variable in JavaScript. (CO3, K2)	6
3.f.	Discuss the advantages of using AngularJS for building Single Page Applications (SPAs). (CO4, K2)	6
3.g.	Differentiate between PUT and POST operations. (CO5, K2)	6
SECTION-C		50
4. Answer any <u>one</u> of the following:-		
4-a.	Explain the Client-Server Model and Three-Tier Architecture. Compare them with respect to scalability, performance, and data flow. (CO1, K2)	10
4-b.	Compare static and dynamic websites based on structure, technology, and user interaction. (CO1, K2)	10
5. Answer any <u>one</u> of the following:-		
5-a.	Design an html form to take the information of a customer visiting a departmental store such as name, contact phone no, preferred days of purchasing, favorite item (to be selected from a list of items), suggestions etc. One should provide button to Submit as well as Reset the form contents also using CSS styles to demonstrate each entity. (CO2, K3)	10
5-b.	Differentiate between inline, internal, and external CSS with proper coding as an example to show how they are used on the same page. Also, discuss which one is preferred in large-scale websites and why. (CO2, K2)	10
6. Answer any <u>one</u> of the following:-		
6-a.	Write a Javascript Program to print numbers from 1 to 10 using for loop and while loop. (CO3, K3)	10
6-b.	Differentiate the performance between `for`, `while`, and `for...in` loops. (CO3, K2)	10
7. Answer any <u>one</u> of the following:-		
7-a.	Explain how to pass parameters to an Angular JS filter. (CO4, K2)	10
7-b.	Describe the Bootstrap grid system in detail. Explain how it supports responsive design with suitable examples and advantages. (CO4, K2)	10
8. Answer any <u>one</u> of the following:-		

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|------|--|----|
| 8-a. | Explain the environment required to create a RESTful web service. (CO5, K2) | 10 |
| 8-b. | Describe the architectural principles of REST and explain how they contribute to scalability and simplicity in web services. (CO5, K2) | 10 |

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