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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA (Integrated)

SEM: II - THEORY EXAMINATION (2025 - 2026)

Subject: Internet and Web Designing

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:-

- (1.1) A web cookie is a small piece of data that is _____. (CO1, K1) 1
- (a) sent from a website and stored in user's web browser while a user is browsing a website
 - (b) sent from user and stored in the server while a user is browsing a website
 - (c) sent from root server to all servers
 - (d) sent from the root server to other root servers
- (1.2) Which one is used to perform routing in OSI network architecture? (CO1, K1) 1
- (a) session layer
 - (b) data link layer
 - (c) transport layer
 - (d) Network layer
- (1.3) Which protocol is used to communicate between a web browser and a web server? (CO2, K1) 1
- (a) FTP
 - (b) HTTP
 - (c) IP
 - (d) NTTP
- (1.4) Which technique is used to convert encrypted data back to original form? (CO2, K2) 1
- (a) Conversion
 - (b) Encryption
 - (c) Decryption

- (d) Both a and c
- (1.5) HTML files have extension? (CO3, K1) 1
- (a) .ht
 - (b) .html
 - (c) .hml
 - (d) .xml
- (1.6) Which tag is used to insert image? (CO3, K1) 1
- (a)
 - (b) <image>
 - (c) <src>
 - (d) <pic>
- (1.7) Explain inline element. (CO4, K2) 1
- (a) new line
 - (b) same line
 - (c) block
 - (d) flex
- (1.8) Identify latest CSS version. (CO4, K2) 1
- (a) CSS2
 - (b) CSS3
 - (c) CSS4
 - (d) CSS5
- (1.9) Identify secure transaction protocol. (CO5, K2) 1
- (a) HTTP
 - (b) FTP
 - (c) HTTPS
 - (d) SMTP
- (1.10) Identify copyright issue. (CO5, K2) 1
- (a) Data theft
 - (b) Styling
 - (c) Layout
 - (d) Color

2. Attempt all parts:-

- (2.1) Explain the list of OSI layers. (CO1, K2) 2
- (2.2) Describe four main properties of HTTP. (CO2, K2) 2
- (2.3) Explain the structure of a basic HTML document. (CO3, K2) 2
- (2.4) Explain different types of CSS (inline, internal, external). (CO4, K2) 2
- (2.5) Describe the limitations of firewalls. (CO5, K2) 2

SECTION-B

30

Answer any one of the following:-

- (3.1) Define the difference between WWW and Internet. (CO1, K4) 6

(3.2)	Compare static and dynamic websites with examples. (CO1, K4)	6
Answer any one of the following:-		
(3.3)	Explain working of modem and router with diagram. (CO2, K3)	6
(3.4)	Explain network layer function. (CO2, K2)	6
Answer any one of the following:-		
(3.5)	Develop an HTML page using ordered and unordered lists. (CO3, K3)	6
(3.6)	Construct an HTML table to display student data (Name, Roll No, Marks). (CO3, K3)	6
Answer any one of the following:-		
(3.7)	Describe the basic syntax and structure of CSS with examples. (CO4, K2)	6
(3.8)	Explain background properties in CSS with suitable examples. (CO4, K2)	6
Answer any one of the following:-		
(3.9)	Explain the importance of firewalls in protecting networks. (CO5, K2)	6
(3.10)	Describe different types of security threats such as malware, phishing, and DoS attacks. (CO5, K2)	6
SECTION-C		50
4. Answer any <u>one</u> of the following:-		
(4.1)	Explain difference between SMTP and FTP. (CO1, K4)	10
(4.2)	Define simplex and half duplex channels. (CO1, K2)	10
5. Answer any <u>one</u> of the following:-		
(5.1)	Explain simplex, half duplex, session layer applications. (CO2, K2)	10
(5.2)	Describe working of voice grade modem with limitations. (CO2, K2)	10
6. Answer any <u>one</u> of the following:-		
(6.1)	Develop a complete HTML webpage demonstrating headings, paragraphs, and formatting. (CO3, K3)	10
(6.2)	Explain HTML forms and their components in detail. (CO3, K2)	10
7. Answer any <u>one</u> of the following:-		
(7.1)	Design a webpage using class and ID selectors effectively. (CO4, K3)	10
(7.2)	Explain margin and padding properties with examples. (CO4, K2)	10
8. Answer any <u>one</u> of the following:-		
(8.1)	Explain the concept of web security and discuss its importance in modern systems. (CO5, K2)	10
(8.2)	Describe the working of a stateful inspection firewall and how it is better than packet filtering firewall. (CO5, K3)	10