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PGDCA

Paper : 2.3

(**Computer Network and Internet**)

Full Marks : 100

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Multiple choice questions (one of the four options in each question is correct, choose the correct one) : 1×10=10

(a) UDP stands for

- (i) User Datagram Protocol
- (ii) Upper Datagram protocol
- (iii) User Data Protocol
- (iv) Uniform Data Protocol

(b) Which of the following is a framing technique?

- (i) Character count
- (ii) Bit stuffing
- (iii) Byte stuffing
- (iv) All of the above

- (c) Which of the following is not a LAN operating system?
- (i) DOS
 - (ii) Windows XP
 - (iii) Windows NT
 - (iv) Linux
- (d) An IP address has
- (i) 4 bytes
 - (ii) 32 bytes
 - (iii) 32 bits
 - (iv) Both (i) and (iii)
- (e) How can you make a list that lists the items with bullet types?
- (i)
 - (ii)
 - (iii) <list>
 - (iv) <dl>
- (f) To transmit data between two heterogeneous LAN, which one of the following is used?
- (i) Gateway
 - (ii) Repeater
 - (iii) Bridge
 - (iv) Router

- (g) Acknowledged connectionless service is provided by
- (i) physical layer
 - (ii) data link layer
 - (iii) network layer
 - (iv) transport layer
- (h) Error control is done in
- (i) network layer
 - (ii) transport layer
 - (iii) data link layer
 - (iv) presentation layer
- (i) Mozilla Firefox is a
- (i) web server
 - (ii) web browser
 - (iii) file server
 - (iv) All of the above
- (j) In HTML, refers to
- (i) give a hyperlink
 - (ii) insert an image
 - (iii) a table header
 - (iv) a column

2. State whether the following statements are True or False : 1×10=10

- (a) JavaScript is a client side high-level language.
- (b) Apache is an example of web browser.
- (c) Informations are considered as packets in data link layer of the OSI model.
- (d) A hub is used in the linear bus topology.
- (e) `<body bgcolor="#f3f3f">` is used for adding a background color in a web page.
- (f) Error control is done in the data link layer of the OSI model.
- (g) Signals can transmit more distances over fiber optic cable than a co-axial cable.
- (h) `<th>` tag is used to add a table row.
- (i) Default port number of the HTTP protocol is 8080.
- (j) `
` tag is used to give a new line in a web page.

3. Fill in the blanks :

1×10=10

- (a) PHP is an example of —.
- (b) In JavaScript to display the length of a string, — method is used.
- (c) In HTML, — tag is used for connecting different web pages.
- (d) The length of the IP addresses in IPv4 is — bits.
- (e) — attribute defines the space between the cells in a table.
- (f) Byte stuffing is a — technique.
- (g) Distance vector is a — algorithm.
- (h) — is used to connect two similar networks.
- (i) — tag specifies a table header in a table.
- (j) — is a search engine.

4. Match Column—A with Column—B : $1 \times 10 = 10$

Column—A		Column—B	
(a)	Downloading	(i)	Networks that connect larger geographical areas
(b)	Horizontal line	(ii)	Frame
(c)	IP address	(iii)	Remote login
(d)	<a>	(iv)	Network layer enables user to transfer file between two hosts across a network or internet using TCP
(e)	Routing algorithm	(v)	Decides the output line through which the incoming packet should be transmitted on
(f)	Search engine	(vi)	Searching of the content available in the internet
(g)	Web browser	(vii)	Retrieving of data from remote system to local system
(h)	Data link layer	(viii)	Hyperlink
(i)	Telnet	(ix)	Mozilla
(j)	FTP	(x)	<hr>
		(xi)	Uploading
		(xii)	<FRAME>
		(xiii)	WAN
		(xiv)	Web browser
		(xv)	32 bits

5. Answer the following (any five) : 8×5=40

- (a) Discuss the different types of guided media of data transmission.
- (b) What is OSI model? Mention the different layers of the OSI model. Explain briefly the function of the physical layer.
- (c) What do you mean by network topology? What are the different types of network topologies? Explain star topology with diagram.
- (d) Explain the functions of the following :
 - (i) Hub
 - (ii) Router
 - (iii) Switch
 - (iv) Gateway
- (e) What are the equipments required for an internet connection? Briefly explain.
- (f) Explain the advantages of using computer networks.
- (g) Explain the following HTML tags :
 - (i) <P>
 - (ii) <TABLE>
 - (iii) <FORM>

(h) What is IP address? How are IP addresses classified? Give their ranges.

6. Write short notes (any *four*) : 5×4=20

(a) Domain Name System

(b) tag

(c) HTTP

(d) Data link layer

(e) E-learning

(f) Telnet

(g) TCP/IP

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