Guidelines for GE-III

Paper Name : Computer Networks

Paper Code : CSGE301) Generic Elective - (GE)

(for Honors courses other than B.Sc.(Hons) Computer Science)

Semester : III

PART A

Guidelines for GE-III THEORY:

S. No.	Unit	Syllabus	Section	Reference
1.	Unit I	Computer Networks: Introduction to computer network, data communication, components of data communication, data transmission mode, data communication measurement, LAN, MAN, WAN, wireless LAN, internet, intranet, extranet.	Ch 1: 1.1, 1.2 upto 1.2.1, 1.3 upto 1.3.2 Ch15: 15.1.1 MAN pg. 1175 (definition) Extranet pg. 1167 (definition) Intranet pg. 1172 (definition) Online Reference for internet, extranet and intranet (omnisecu.com/basic- networking/internet-intranet-and-extranet.php) Note: For brief description/definition of current topic like data communication measurement please refer to suitable online resources	[1]
2.	Unit 2	Network Models: Client/ server network and Peer-to-peer network, OSI, TCP/IP, layers and functionalities.	Ch 25: 25.1.2 Ch 2 : 2.1 2.2, 2.3	[1]
3.	Unit 3	Transmission Media: Introduction, Guided Media: Twisted pair, Coaxial cable, Optical fiber. Unguided media: Microwave, Radio frequency propagation, Satellite.	Ch 7 : 7.1, 7.2, 7.3upto 7.3.2 Ch16: 16.3	[1]
4.	Unit 4	LAN Topologies: Ring, bus, star, mesh and tree topologies. Network Devices: NIC, repeaters, hub, bridge, switch, gateway and router.	Ch 1: 1.2.2 Ch 17 : 17.1.1, 17.1.2 upto pg. 495, 17.1.3 Bridge (description) 13.2.6 upto separating collision domains on pg. 374 (definition) pg. 1160 NIC pg. 366, 1177 (definition) Gateway pg. 1012 (definition) Online Resource for Tree Topology(omnisecu.com/basic-networking/tree-topology.php)	[1]
5.	Unit 5	Internet Applications: www, telnet, ftp, e-mail, Video Conferencing, VOIP.	Ch 26 : 26.1, 26.2, 26.3 upto SMTP (pg. 895), 26.4 upto pg. 906 (except Network Virtual Terminal). Ch 28 : pg. 990 (definition of Video conferencing from 28.3.3), pg. 994 (videoconferencing example: skype)	[1]
		Internet Terms: Web page, Home page, website, internet browsers, URL, Hypertext, ISP,	Ch 1: pg. 1 to 21	[2]

		Web server.		
		Download and upload, online and offline. Social networks, search engines, e-Commerce, m-Commerce, blogs.	Note: For brief description/definition of current topics like download and upload, online and offline. e-Commerce, m-Commerce, social networks, search engines, please refer to suitable online resources	NA
6.	Unit 6	Introduction to Web Design: Introduction to hypertext mark-up language (html), Document type definition, creating web pages, lists, hyperlinks, tables, web forms, inserting images, frames. Customized Features: Cascading style sheet (CSS) for text formatting and other manipulations.	Ch 1: pg. 21 to 35 Ch 2: complete Ch 3: complete Ch 4: complete Ch 8: pg. 376 to 407 Ch 11:pg. 506 to 521	[2]
		hosting options and domain name registration.	Ch 26: 26.6 upto 26.6.2 (pg. 910- 916), 26.6.7	[1]

[1] Forouzan, B.A. Data Communication and Networking, McGraw-Hill Education. Global edition 5e(©2013)

[2] Minnick, J. Web Design with HTML5 and CSS3. 8th edition. Cengage Learning.

PART B

PRACTICAL LIST FOR GE-III:

Practical exercises based on concepts listed in theory using HTML.

1. Create HTML document with following formatting – Bold, Italics, Underline, Colors, Headings, Title, Font and Font Width, Background, Paragraph, Line Brakes, Horizontal Line, Blinking text as well as marquee text.

2. Create HTML document with Ordered and Unordered lists, Inserting Images, Internal and External linking

3. Create HTML document with Table:

		Some image here		

4. Create Form with Input Type, Select and Text Area in HTML.
5. Create an HTML containing Roll No., student's name and Grades in a tabular form.

6. Create an HTML document (having two frames) which will appear as follows:

About Department 1 Department 2 Department 3	This frame would show the contents according to the link clicked by the user on the left frame.

7. Create an HTML document containing horizontal frames as follows:

Department Names (could be along with Logos)
Contents according to the Link clicked

8. Create a website of 6 – 7 pages with different effects as mentioned in above problems.

9. Create HTML documents (having multiple frames) in the following three formats:

Department Names (could be along with Logos)

Contents according to the Link clicked

Frame 1

Frame 2	Frame 3

10. Create a form using HTML which has the following types of controls:
    I. Text Box
    II. Option/radio buttons
    III. Check boxes
    IV. Reset and Submit buttons

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