



EASTERN UNIVERSITY, SRI LANKA

THIRD EXAMINATION IN SCIENCE –2008/2009

SECOND SEMESTER (Sep. /Oct. 2010)

CS 303 – INTERNET AND MULTIMEDIA APPLICATIONS

(PROPER & REPEAT)

Answer all questions

Time allowed: 02 hours

Q1)

- What is the Internet?
- What is the difference between the Internet and the World Wide Web (WWW)?
- What are the components needed to connect to the Internet? Explain each of them.
- What does “Internet Standards” mean?
- Explain TCP/IP reference model and the protocol used on each layer?

Q2)

- Briefly explain IPV4 address format.
- What does “subnetting” mean?
- What are the advantages of subnetting?
- Consider a class C address 194.2.3.0 and its default mask of 255.255.255.0. If this need to be rearranged with 4 host subnet, find the
 - Subnet mask,
 - 6th subnet host range,
 - 4th subnet ID and its broadcast address,
 - Subnet to which the addresses 194.2.3.20 and 194.2.3.99 belongs to and their subnet and broadcast addresses respectively.

Q3)

- Explain Classless Interdomain Routing (CIDR) with suitable example?
- Define the term "IP Datagram".
- IPV4 Datagram format illustrated below, Define A to N and write short notes on each of them,

A	B	C	D	
E			F	G
H	I		J	
K				
L				
M				
N				

- Briefly explain IPV6 addressing format.
- Explain any one approach for transitioning from IPV4 to IPV6.

Q4)

- Briefly describe the term **Data Compression** and Identify two important compression concepts.
- Write down **Lempel-Ziv-Wetch (LZW)** compression Algorithm.
- Draw the flow chart of **Lempel-Ziv-Wetch (LZW)** compression.
- The **Lempel-Ziv-Wetch (LZW)** compression algorithm replaces string of characters with single code. Give the **LZW** compression algorithm in its simplest form. Run the **LZW** compression algorithm for the string **"the/rain/in/Spain/falls/mainly/on/the/plain"**, creating the corresponding compression table.