



EASTERN UNIVERSITY, SRILANKA

DEPARTMENT OF MATHEMATICS

THIRD EXAMINATION IN SCIENCE –2008/2009

SECOND SEMESTER (Jan, 2012)

CS 303 – INTERNET AND MULTIMEDIA APPLICATIONS

SPECIAL REPEAT

Answer all questions

Time allowed: 02 hours

Q1)

- a) What is the internet?
- b) What is the difference between the Internet and the World Wide Web (WWW)?
- c) What are the components needed to connect the internet? Explain each of them.
- d) Explain TCP/IP reference model and what are the protocol using on each layer?

Q2)

- a) Explain how a web-cache satisfies an *HTTP* request on behalf of a client.
- b) Describe the three major components of an E- mail system.
- c) Describe the following type of WebPages:
 - a. Static WebPages;
 - b. Dynamic WebPages.
- d) What is the main difference between HTML and XHTML?
- e) Briefly describe any five tags in "*XHTML*".

Q3)

- a) Briefly describe the term *Data Compression* and identify two important compression concepts.
- b) Write down **Lempel-Ziv-Wetch (LZW)** compression Algorithm.
- c) Draw the flow chart of **Lempel-Ziv-Wetch (LZW)** compression.
- d) The *Lempel-Ziv-Wetch (LZW)* compression algorithm replaces string of character with single code. Create the *LZW* compression table for the string */WED/WE/WEE/WEB/WET*.

Q4)

- a) Briefly explain IPV4 address format.
- b) What does mean “subnetting”?
- c) What are the advantages of subnetting?
- d) Consider a class C address 192.10.15.h and its default mask of 255.255.255.0 if this needs to be rearranged with 4 host subnets, find
 - i. Subnet mask,
 - ii. 4th subnet host range,
 - iii. 3th subnet ID and its broadcast address,
 - iv. What subnet does belong to the address 192.10.15.20 and 192.10.15.99 and what are their subnets and broadcast addresses respectively.