



EASTERN UNIVERSITY, SRI LANKA
DEPARTMENT OF MATHEMATICS
THIRD YEAR EXAMINATION IN SCIENCE - 2012/2013
SECOND SEMESTER (June, 2016)
CS 303 – INTERNET AND MULTIMEDIA APPLICATIONS
(SPECIAL REPEAT)

Questions Time allowed: 02 hours

- Internet interconnects hundreds of millions of computing devices throughout the world.
- Explain the infra structure of Internet with the aid of network components.
- What is the difference between Internet and World Wide Web?
- Explain the cookie technology which is commonly used in commercial websites?
- Write short notes on following topics:
 - Transmission Control Protocol (TCP).
 - Web Server;
 - File Transfer Protocol (FTP);
 - Internet Service Provider (ISP);
- Describe briefly the uses of Internet with respective examples.
- IP address is that uniquely and universally defines the connection of the end system to the internet.
- What is sub netting? Why we need to subnet the network addresses?
- Draw a flow chart to find out the class of given network address.
- Consider a class B address, 178.2.h.h, and its default mask of 255.255.0.0 if this needs to be rearranged into 4 subnets, Find:
 - The subnet mask;
 - 3rd subnet ID and its broadcast address;
 - IP address of subnet 5 & its usable range;
 - What subnet does the address 178.2.3.40 & 178.2.33.69 belong to and what are their subnet & broadcast addresses respectively?

03.

- a) Hyper Text Transfer Protocol (HTTP) is the foundation of data communication for the World Web. Briefly explain how HTTP works.
- b) Draw a general format of an HTTP request message.
- c) Briefly describe the following request methods:
 - i. GET;
 - ii. HEAD;
 - iii. DELETE;
 - iv. CONNECT;
- d) Distinguish between persistent and non-persistent connections with an aid of a diagram.
- e) Briefly explain following common status codes;
 - i. 200 OK;
 - ii. 301 Moved Permanently;
 - iii. 400 Bad Request;
 - iv. 404 Not Found;

04.

- a) List three protocols which are commonly used in E-mail. State the main function of those protocols.
- b) Briefly explain the process of sending E-mail from a sender to a recipient. (Use appropriate diagrams to support your answer.)
- c) Discuss the process of Address Resolution Protocol (ARP) and Reverse Address Resolution Protocol (RARP) with a suitable example.
- d) Write down three services of Domain Name System (DNS).
- e) Why we need to compress data in a multimedia system?
- f) List two types of data compression methods with example.