The Open University of Sri Lanka

Master of Arts in Teacher Education
Final Examination 2009
CSE1177: Internet Technology
Duration: 2 Hours

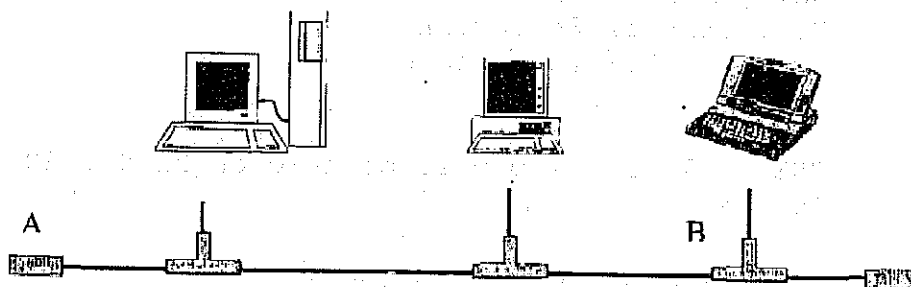**Date:** 13.07.2009   **Time:** 10.00 am -12.00 noon

Answer Four Questions only.

Q1.

i. What is a computer network. Describe the advantages and disadvantages of computer networks.

ii. What are the types of computer systems that can adapt, Star, Ring and Hierarchical network topologies?

iii. Compare and contrast *Coaxial* and *Satellite link* communication media.

Q2.

i. Use the above figure to answer questions a to c,

a. What are the components A and B?

b. What is the network topology used in the above network?

c. What are the limitations of the above network?

ii. What do you understand by the term *node* in the context of computer networking?

iii. Define the term *protocol* in the context of the Internet. Name the most commonly used protocol today for Internet communication.

iv. Comparatively describe the concepts of parallel and serial transmissions.

Q3.

i. By means of protocol, domain and filename explain what is an URL?

ii. What are the protocol names and default port numbers to send Emails and receive emails?

iii. "Nowadays electronic mail system is the most popular communication method than other communication methods" Do you agree with this statement? Explain briefly.

iv. A simple email message is given bellow:

```
To: carl@yahoo.com
Cc: gaminiperera@ou.ac.lk
Bcc: skperera@ou.ac.lk
From: abskumara@yahoo.com
Data
Dear friends,
CSE 1177 CBT Exam will be held on 21.01. 2006
Thanks
Sk.
```

By using the above message, answer the following questions

   a. What is the email address of the sender?

   b. This email does not contain a subject; Write the massage '*CSE 1177 OBT Exam*' as the subject. In the correct place that it should appear.

Q4.

    i.   Briefly explain the following.

        a. Bridges
        b. Routers
        c. Hub

    ii.   State a communication media that is not physical.

    iii. State the communication media which is most suitable for both indoor and outdoor networking.

    iv. Explain the function of a modem, stating the meaning of the abbreviation modem.

Q5.

    i)   Explain why we need protocols for the Internet communication.

    ii)   Comparatively, write a short note on the following services on The Internet.

        Email
        Ftp
        Telnet

    iii) Briefly explain how TCP/IP enable the internet communication using packet terminology.

Q6.

    i)   Describe the importance of Web technology in the context of education.

    ii)   Write what is meant by the following domain name extensions.

        a) .lk
        b) .uk
        c) .edu
        d) .mil

    iii) Write short notes on *the history* of the Internet.
    iv) Describe the use of the Agent technology in the context of searching information on The Internet.