

UNIVERSITY OF RUHUNA
BACHELOR OF COMPUTER SCIENCE (GENERAL) DEGREE
LEVEL III (SEMESTER I) EXAMINATION – June/July 2015

COURSE UNIT: CSC3142 – Internet Services & Protocols

Duration : 2 Hours

Answer all four (04) questions.

1.

- a. Discuss how Internet impacts on our daily lives.
- b. Describe the role of each layer in the TCP/IP model.
- c.
 - i. Suppose you are working as a System Administrator of a company. List six basic responsibilities of your job.
 - ii. Being a System Administrator, you have experience the qualities in terms of good, bad, and ugly; briefly explain each of them.
- d.
 - i. Explain why Network Management is important?
 - ii. List the challenges of Network Management.

2.

- a. What is the function of Domain Name System (DNS)?
- b. Describe the components of Domain Name System (DNS).
- c. Explain the process of *Recursive queries* and *Iterative queries* in DNS using suitable diagrams.
- d. Describe the functions of *Primary Name Servers* and *Secondary Name Servers*.
- e. Briefly explain the *Dynamics* and *Active* documents in the WWW.

3.

- a. List down three agents that are used in E-Mail infrastructure classification and explain two of them in detail.
- b. Explain the Push and Pull communication giving two advantages for each.
- c. Describe the role of Multipurpose Internet Mail Extensions (MIME).
- d. Currently two mail access protocols are available: Post Office Protocol, Version 3 (POP3) and Internet Mail Access Protocol, Version 4 (IMAP4). IMAP4 is similar to POP3, but has more additional features. Name five such additional features in IMAP4.

4.

- a. List four common security attacks for a computer and their countermeasures.
- b.
 - i. Explain the functions of a firewall in a networking environment.
 - ii. List down the types of firewalls.
- c. What are the similarities and differences between SSH and Telnet protocols.
- d.
 - i. Describe *synchronous e-learning* and *asynchronous e-learning* using suitable examples.
 - ii. List five popular authoring tools for e-learning.
