

SOUTHEASTERN UNIVERSITY OF SRI LANKA

SECOND EXAMINATION IN BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
FOR MANAGEMENT STUDIES - 2008/2009, SEMESTER - I, JUNE 2010

ITMS 2153 -DATA COMMUNICATION AND NETWORK ADMINISTRATION

Answer all questions**Time : Three hours.****01.**

- (a) Explain what you understand by parity checking and give an example. (05 Marks)
- (b) Describe the difference(s) between broadband and baseband. (05 Marks)
- (c) Give an account on encoding in data communication and explain two encoding methods? (10 Marks)

(Total Marks 20)**02.**

- (a) If a data transmission line can transmit in the frequency range of 1000 MHz to 7300 MHz, what is its bandwidth? (05 Marks)
- (b) How does a data communication differ from telecommunication? (05 Marks)
- (c) List and explain possible errors in data communications. (10 Marks)

(Total Marks 20)**03.**

- (a) What do you understand by VoIP? (05 Marks)
- (b) Describe the characteristics of fiber-optic cables. (05 Marks)

(c) Find the following from the IP address given. IP Address: 200.100.10.135/26

- i. Identify the class
- ii. Calculate the sub netting table.

(10 Marks)

(Total Marks 20)

04.

(a) Explain the following protocols.

- i. WAP
- ii. FTP
- iii. SMTP
- iv. HTTP
- v. UDP

(05 Marks)

(b) Explain the OSI model and its importance in networking.

(10 Marks)

(c) Differentiate wired and wireless technology and give examples.

(05 Marks)

(Total Marks 20)

05.

(a) Differentiate the roles of a DNS and WEB Servers.

(05 Marks)

(b) Write the steps in creating users in the Active Directory Services in Windows Server 2008.

(05 Marks)

(c) Differentiate the terms authentication and authorization.

(05 Marks)

(d) Briefly explain the potential threats to a network and suggest some strategies to protect from them.

(05 Marks)

(Total Marks 20)