



FINAL
Examination Paper

(COVER PAGE)

Session : April 2013

Programme : Diploma In Information And Communication Technology (DICTN)

Course : CSC2102
ICT1105 : Fundamentals Of Networking

Date of Examination : July 29, 2013

Time : 5:00pm – 7:00pm Reading Time: Nil

Duration : 2 Hours

Special Instructions :

Answer any FOUR (4) questions.

Materials permitted : Nil

Materials provided : Nil

Examiner (s) : Mr. Victor Raj Kolintiar, Koh Chong Lin.

Moderator : Associate Professor Dr. Abdullah Gani

This paper consists of 3 printed pages, including the cover page.

INTI INTERNATIONAL COLLEGE SUBANG
DIPLOMA IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (DICTN)

ICT 1105: FUNDAMENTALS OF NETWORKING
FINAL EXAMINATION: APRIL 2013 SESSION

Question 1

- (a) Define crosstalk. Explain **TWO (2)** reasons on why crosstalk happens. (7 marks)
- (b) Identify and explain **THREE (3)** types of control implemented at data link layer. (6 marks)
- (c) Identify and explain **FOUR (4)** types of Digital Subscriber Line (DSL). (12 marks)

Question 2

- (a) State **FOUR (4)** differences between serial and parallel transmission. (8 marks)
- (b) Identify and explain **TWO (2)** types of fiber optics cable. (6 marks)
- (c) Define multiplexing and discuss **THREE (3)** types of multiplexing categories. (11 marks)

Question 3

- (a) Identify and explain **FOUR (4)** types of backbone networks. (8 marks)
- (b) Define the following internetworking devices:
(i) Repeaters
(ii) Bridges
(iii) Routers
(iv) Gateways (8 marks)
- (c) Discuss **TWO (2)** differences between circuit-switched connection and virtual-circuit connection. (8 marks)

Question 4

- (a) Identify and discuss **THREE (3)** types of firewall technology. (9 marks)
- (b) Explain the following:
(i) Logical Link Control (LLC)
(ii) Medium Access Control (MAC)
(iii) Protocol Data Unit (PDU) (9 marks)
- (c) List **SEVEN (7)** type of information that can be provided by protocol analyzers. (7 marks)

Question 5

- (a) Discuss **SIX (6)** advantages of client-server network over peer-to-peer network. (9 marks)
- (b) Identify and explain the functions of each layer in the OSI model. (14 marks)
- (c) Define data modulation. (2 marks)

Question 6

- (a) Explain the following type of Ethernet:
(i) 10 BASE T
(ii) 100 BASE T
(iii) 1000 BASE T (9 marks)
- (b) Identify and explain **FOUR (4)** types of backbone in Local Area Networks (LAN). (8 marks)
- (c) Differentiate between Circuit Switching and Packet Switching. (8 marks)

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