FINAL
Examination Paper

(COVER PAGE)

Session : April 2013

Programme : Diploma In Information And Communication Technology (DICTN)

Course : CSC2102

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.
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)

--THE END--
CSC1105(F)/April2013/cikoh/collated/victor