

FINAL  
Examination Paper

(COVER PAGE)

Session : August 2015

Programme : Diploma In Information And Communication Technology (DICTN)

Course : ICT1105: Fundamentals Of Networking

Date of Examination : December 8, 2015

Time : 5.00pm – 7.00pm Reading Time : Nil

Duration : 2 Hours

**Special Instructions :-**

Answer any **FOUR (4)** questions in the answer booklet provided.

Materials permitted : Nil

Materials provided : Nil

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

Moderator : Ms. Noor Hasrina

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

DIPLOMA IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (DICTN)  
ICT1105: FUNDAMENTALS OF NETWORKING  
FINAL EXAMINATION: AUGUST 2015 SESSION

**Instructions:** This paper consists of **SIX (6)** questions. Answer any **FOUR (4)** questions in the answer booklet provided. All questions carry equal marks.

**Question 1**

- (a) Define crosstalk. State **TWO (2)** reasons why crosstalk happens. (4 marks)
- (b) Identify and discuss **FIVE (5)** networking standard organizations. (15 marks)
- (c) Explain **THREE (3)** characteristics of several types of physical media. (6 marks)

**Question 2**

- (a) Identify and explain **FIVE (5)** hardware equipment's found inside a crimping tool kit. (10 marks)
- (b) Explain the following terminologies relating to port numbers:
  - (i) Well known ports
  - (ii) Registered ports
  - (iii) Private ports(6 marks)
- (c) Describe the **NINE (9)** steps for troubleshooting network problems. (9 marks)

**Question 3**

- (a) Identify and discuss **THREE (3)** general guidelines for keeping your network highly available. (9 marks)
- (b) Explain **THREE (3)** basic network topologies with the aid of relevant diagrams. (10 marks)
- (c) List **SIX (6)** functions of **Network Operating System (NOS)** in client/server networks. (6 marks)

**Question 4**

- (a) Draw the **Open Systems Interconnection (OSI)** model. (7 marks)
- (b) Compare analog and digital signals. (10 marks)
- (c) Explain the following network protocols:  
 (i) UDP  
 (ii) IPv6  
 (iii) FTP  
 (iv) ARP (8 marks)

**Question 5**

- (a) Describe the following interconnecting devices:  
 (i) Repeaters  
 (ii) Bridges  
 (iii) Switches  
 (iv) Routers  
 (v) Gateways (10 marks)
- (b) Define switching. Identify and explain **THREE (3)** methods of switching. (10 marks)
- (c) State the name of the following **IEEE 802** standards:  
 (i) 802.3  
 (ii) 802.4  
 (iii) 802.5  
 (iv) 802.11  
 (v) 802.16 (5 marks)

**Question 6**

- (a) List **EIGHT (8)** specific capabilities common to wireless network testing tools. (8 marks)
- (b) Identify and explain **FOUR (4)** methods of remote connectivity. (8 marks)
- (c) Explain **THREE (3)** categories of disaster recovery contingencies. (9 marks)

~THE END~

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