



**FINAL**  
Examination Paper

(COVER PAGE)

Session : August 2014

Programme : Diploma In Information And Communication Technology  
(DICTN/DICTI)

Course : ICT1105 / CSC2102 : Fundamentals Of Networking

Date of Examination : December 9, 2014

Time : 11:00am – 1:00pm Reading Time: Nil

Duration : 2 Hours

Special Instructions :

Answer any **FOUR (4)** questions.

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Materials permitted : Nil

Materials provided : Nil

Examiner (s) : Mr. Victor Raj Kolintiar, Koh Chong Lin, Samuel Kan Wen Hung.

Moderator : Ms. Noor Hasrina

## INTI INTERNATIONAL COLLEGE SUBANG

DIPLOMA IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (DICTN)  
ICT 1105: FUNDAMENTALS OF NETWORKING  
FINAL EXAMINATION: AUGUST 2014 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) Describe the following types of network:  
(i) LAN  
(ii) MAN  
(iii) WAN  
(9 marks)
- (b) Briefly explain the functions of any **FIVE (5)** layers in the OSI Model.  
(10 marks)
- (c) Define Network Interface Card (NIC). List **FIVE (5)** factors a user must consider before installing a Network Interface Card.  
(6 marks)

**Question 2**

- (a) Identify and discuss the **FOUR (4)** fundamental properties of analog signal.  
(10 marks)
- (b) Describe any **THREE (3)** basic network topologies. For each topologies explained, draw the relevant diagrams.  
(15 marks)

**Question 3**

- (a) Differentiate TCP and UDP.  
(10 marks)
- (b) Define the following internetworking devices:  
(i) Repeaters  
(ii) Bridges  
(iii) Routers  
(6 marks)
- (c) Identify and briefly explain any **THREE (3)** types of backbone network, with the aid of relevant diagrams.  
(9 marks)

**Question 4**

- (a) Explain **THREE (3)** types of wireless transmission. (9 marks)
- (b) Briefly explain the following:  
(i) Fault tolerance and  
(ii) Load balancing  
(iii) Server mirroring (6 marks)
- (c) List the **NINE (9)** steps for troubleshooting network problems.  
*(Hints: Correct orders are very important).* (10 marks)

**Question 5**

- (a) Differentiate simplex, half-duplex and full-duplex data transmissions. (6 marks)
- (b) Guided media impairments include noise, attenuation and delay distortion.  
Define noise and discuss the **FOUR (4)** categories of noise. (10 marks)
- (c) Explain **THREE (3)** networking standard organizations. (9 marks)

**Question 6**

- (a) Discuss **THREE (3)** different backup methods. (9 marks)
- (b) Identify and explain **FOUR (4)** network troubleshooting tools. (16 marks)

**-THE END-**