



FINAL  
Examination Paper

(COVER PAGE)

Session : AUGUST 2017

Programme : Diploma In Information And Communication Technology (DICTN)

Course : ICT1105: Fundamentals of Networking

Date of Examination : 9 December, 2017 (Saturday)

Time : 8:00 am – 10:00 am Reading Time : Nil

Duration : 2 Hours

**Special Instructions :**

SECTION A: Answer ALL multiple choice questions.

SECTION B: Answer any THREE (3) essay questions.

**IMPORTANT NOTE : THIS PAPER SHOULD NOT BE TAKEN OUT OF THE  
EXAMINATION HALL.**

Material Permitted : Nil

Materials provided : OMR SHEETS

Examiner(s) : Victor Raj Kolintiar and Vasuky Mohanan

Moderator : Ms. Noor Hasrina

*This paper consists of 6 printed pages, including the cover page*

DIPLOMA IN INFORMATION AND COMMUNICATIONS TECHNOLOGY  
PROGRAMME (DICTN)  
ICT 1105: FUNDAMENTALS OF NETWORKING  
FINAL EXAMINATION: AUGUST 2017 SESSION

**Section A**

**Instructions:** This section consists of **Twenty (20)** questions. Answer **ALL** questions in the OMR sheet provided.

1. The IETF standard documents are called \_\_\_\_\_.
  - A. RFC
  - B. ID
  - C. RCF
  - D. CD
  
2. In the layer hierarchy, as the data packet moves from the upper to the lower layers, headers are \_\_\_\_\_.
  - A. removed
  - B. added
  - C. rearranged
  - D. modified
  
3. Communication between a computer and a keyboard involves \_\_\_\_\_ transmission.
  - A. automatic
  - B. half-duplex
  - C. full-duplex
  - D. simplex
  
4. Which organization has authority over interstate and international commerce in the communications field?
  - A. ITU-T
  - B. IEEE
  - C. FCC
  - D. ISOC
  
5. Which of the following is **NOT** a network edge device?
  - A. PC
  - B. Smartphones
  - C. Servers
  - D. Switch

6. In computer network, nodes are \_\_\_\_\_.
- A. computer that originates the data
  - B. computer that routes the data
  - C. computer that terminates the data
  - D. all of the above
7. Communication channel is shared by all the machines on the network in \_\_\_\_\_.
- A. broadcast network
  - B. unicast network
  - C. multicast network
  - D. none of the above
8. Bluetooth is an example of \_\_\_\_\_.
- A. personal area network
  - B. local area network
  - C. virtual private network
  - D. none of the above
9. A \_\_\_\_\_ is a device that forwards packets between networks by processing the routing information included in the packet.
- A. bridge
  - B. firewall
  - C. router
  - D. all of the above
10. A list of protocols used by a system, one protocol per layer, is called \_\_\_\_\_.
- A. protocol architecture
  - B. protocol stack
  - C. protocol suit
  - D. none of the above
11. Which of the following extends a private network across public networks?
- A. local area network
  - B. virtual private network
  - C. enterprise private network
  - D. storage area network

12. The number of layers in ISO OSI reference model is \_\_\_\_\_.
- A. 5
  - B. 7
  - C. 6
  - D. 8
13. Application layer is implemented in \_\_\_\_\_.
- A. Ethernet
  - B. NIC
  - C. End system
  - D. None of the above
14. The functionalities of presentation layer include \_\_\_\_\_.
- A. data compression
  - B. data encryption
  - C. data description
  - D. all of the above
15. Function of subnetting include/s \_\_\_\_\_.
- A. It divides one large network into several smaller ones
  - B. It divides network into network classes
  - C. It speeds up the network
  - D. All of the above
16. Which of the following provides reliable communication?
- A. TCP
  - B. IP
  - C. UDP
  - D. All of the above
17. What is the address size of IPv6?
- A. 32 bit
  - B. 64 bit
  - C. 128 bit
  - D. 256 bit

18. The Internet is an example of \_\_\_\_\_.
- A. cell switched network
  - B. circuit switched network
  - C. packet switched network
  - D. all of the above
19. At which OSI layer does a repeater operate?
- A. Data link layer
  - B. Physical layer
  - C. Network layer
  - D. Transport layer
20. Which transmission media has the highest transmission speed in a network?
- A. coaxial cable
  - B. twisted pair cable
  - C. electrical cable
  - D. optical cable

**Section B**

**Instruction:** This section consists of **FOUR (4)** questions. Answer any **THREE (3)** questions in the answer booklet provided. All questions carry equal marks.

**Question 1**

- (a) Describe **FIVE (5)** network services. (10 marks)
- (b) Explain **THREE (3)** types of backbone network, with the aid of a relevant diagrams. (10 marks)

**Question 2**

- (a) Use a table to list the differences between TCP and UDP. (10 marks)
- (b) Describe the steps in installing and configuring **Network Interface Card (NIC)** hardware. (10 marks)

**Question 3**

- (a) Discuss **FIVE (5)** TCP/IP core protocols. (10 marks)
- (b) Guided media impairments include noise, attenuation and delay distortion. Define what noise is. Discuss the **FOUR (4)** categories of noise. (10 marks)

**Question 4**

- (a) Define **Distributed Data Processing (DDP)**. State **FOUR (4)** advantages and **FOUR (4)** disadvantages of DDP. (11 marks)
- (b) Explain **THREE (3)** categories of VoIP services. (9 marks)

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