FIJI NATIONAL UNIVERSITY

COLLEGE OF ENGINEERING, SCIENCE AND TECHNOLOGY

SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING

TRADE DIPLOMA IN ELECTRICAL/ELECTRONIC ENGINNERING

EEE 561 COMPUTER & DATA COMMUNICATION

FINAL EXAMINATION (TRIMESTER 2, 2016)

DATE/TIME/ROOM – Refer to Timetable

INSTRUCTIONS TO CANDIDATES

1. You are allowed 10 minutes extra reading time during which you are NOT to write.
2. Begin each answer on a fresh new page and use both sides of the sheets.
3. Write your identification number on the top of each attached sheet.
4. The paper contains three sections, Sec A, Sec B & Sec C.
5. For all sheets of paper in which rough work has been done, cross it through and you must attach to your answer script.
6. Write clearly the number(s) of the question(s) attempted on the top of each sheet.
7. Good handwriting and way of representation of answers has weight with respect to marks.
8. Draw diagrams if any with pencil only and label it.
9. Always check your work before you leave the exam room.
10. **The paper is of 100 marks.**

Section A: Multiple Choice Questions (10x1= 20 marks)

1. Multipoint topology is
   a) Bus c) Star
   b) Mesh d) Ring
2. A communication path way which transfers data from one point to another is called
   a) Link c) Node
   b) Medium d) Topology
3. Elapsed time between an inquiry and response is called
   a) Transit time c) Delay time
   b) Processing time d) Response time
4. Connection of telephone office is practical example of
   a) Ring c) Hybrid
   b) Mesh d) Bus
5. Both station can transmit and receive data simultaneously in
   a) Simplex mode c) Half duplex mode
   b) Full duplex mode d) None of the above
6. Protocols are, set of rules to govern
   a) Communication c) Maintain standard
   b) Metropolitan communications d) None of the above
7. Agreement between communicating devices are called
   a) Data c) Message
   b) Protocol d) Transmission medium
8. A circuit switched network is made of set of switches connected by physical
   a) Link c) Media
   b) Nodes d) Frames
9. In packet switched network, resources are allocated
   a) Randomly c) On Demand
   b) Reserved already d) None of the above
10. When a frame is forwarded, decision must specify the
    a) Data c) Signal
    b) Port d) Bridge
11. No protocol at data link layer allows fragmentation and reassembly of
    a) System c) Frame
    b) Data d) Bridge
12. Active hub is actually a
    a) Multipart network c) Multipart repeater
    b) Multipart router d) Multipart hub
13. Repeater is a
    a) Amplifier c) Regenerator
    b) Modifier d) Generator
14. Header of datagram in IPv4 has
    a) 0 to 20 bytes c) 20 to 60 bytes
    b) 20 to 40 bytes d) 20 to 80 bytes

15. Setup, data transfer, and connection teardown are three phases of
    a) Circuit switching
    b) Message switching
    c) Packet switching
    d) None of the above
16. Which of the following is not a guided transmission line
    a) Optical fiber
    b) Coaxial cable
    c) Laser beam
    d) Twisted pair
17. Internet users use the
    a) High-level data link control
    b) Multipoint protocol
    c) Password authentication protocol
    d) Point to Point protocol
18. Term that refers to a set of procedures used to restrict amount of data that sender can send before waiting for acknowledgment is
    a) Error control
    b) ADSL
    c) Flow control
    d) Byte stuffing
19. An applet is a program written in Java on the
    a) Web
    b) Domain
    c) Server
    d) HTML
20. Protocol is client/server program used to retrieve the
    a) Document
    b) Location
    c) Information
    d) Files

Section B: Short answer questions (Each carry 5 marks)

1. What do you mean by Hub, Bridge and Switch?

2. Explain Cisco layer two and layer three architecture.

3. What is simplex, half duplex and full duplex communication?

4. What do you mean by CSMACD/CA protocol?

5. What do you mean by Queuing theory in networks?

6. What is router? Explain its functionalities.

7. Distinguish between
    a) TCP versus UDP protocol
    b) Router versus Switch

8. What is point to point protocol?

Section C: Long Answer questions (each carry 10 marks)

1. Explain the seven layers of the OSI model and its functions.

2. With respect to TCP, explain the below terms
   a) TCP congestion control algorithms.
   b) 3- way handshaking

3. Write briefly on the following topics
   a) Ethernet
   b) PSTN
   c) DNS
   d) TFTP

4. Explain the browser architecture with the help of a diagram.

---------- THE END ----------

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FNU/E-5

EQP RECEIPT CHECKLIST FORM

Particulars		Details/Comments (To be filled by Unit Lecturer)	Tick if present on EQP (To be filled by exams staff)
Cover Page			
Fiji National University with Logo		✓	
College		✓	
School		✓	
Program		✓	
Unit Code.		✓	
Unit Name		✓	
Examination Period		✓	
Duration of Examination		✓	
Instructions			
Total Number of Pages		✓	
Other Pages			
Footer	Page Number	✓	
	Unit Code	✓	
	Examination Period	✓	
Last Page			
The End		✓	
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Proper Print		✓	
Examination Requirements (FNU/E-1)		✓	
Moderator's Report (FNU/E-3)		✓	
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