

Lecture 26 Revision

- Last Lecture
 - Advanced network topics
- This Lecture
 - What next?
 - Revision and exam information

Outline of 244 Lectures

Introduction

Signals and Encoding

Data transmission

Data compression

Data integrity (2)

Data security (2)

Introduction to networks

Media access control

Flow and error control

Local area networking (2)

Wide area networking (2)

Internet Protocol (IP) (2)

Transport Control

Protocol (TCP) (2)

Internet applications

ADSL & ATM

Wireless Technologies(2)

Advanced Network Technologies

Ethics

COSC301: Network Management

- Topics
 - Operating systems
 - Network hardware
 - Network interface management
 - Scripting
 - Wireless networking
 - File systems
 - System installation and management (2)
 - Scheduled tasks and log management
 - Domain Name System
 - DHCP & address assignment
 - World Wide Web infrastructure

COSC301 (cont.)

- Topics (cont.)
 - Transaction Layer Security (TLS)
 - Electronic mail
 - Remote terminal services (SSH)
 - File transfer & Web caching
 - Directory services (LDAP)
 - Network administration
 - Internal routing
 - Firewalls
 - Network management tools
 - Network measurement & accounting
 - Diagnostics
 - Real life security experiences

COSC402: Advanced Network Topics

- Topics
 - Deep insights of TCP
 - Sockets introduction
 - Develop network apps using Socket APIs
 - IPv6
 - Wireless sensor networks & Internet of Things
 - Data center networks
 - 4G/5G networks
 - Vehicular Ad-hoc Networks
 - Li-Fi networks & Network on chips
 - Software defined networks

Exam

- Exam scope
 - Will focus on the topics not yet assessed
 - No direct questions from lectures 1-7
 - No ethics questions
 - Everything else
- Online open-book exam
 - Your responses MUST be in your own words
 - Copying from lecture notes, textbooks and online resources is not permitted.

Exam Format

- Exam questions have similar format as those in the past years
 - 13 questions in total
 - Questions may contain sub-questions that are worth various marks
 - The total number of marks is 100
- A sample exam question

10. Internet Applications

- (a) Distinguish between *client-server network model* and *peer-to-peer network model*.

- (b) The following three protocols are designed for Electronic Mail: *Simple Mail Transport Protocol (SMTP)*, *Post Office Protocol (POP)*, and *Internet Mail Access Protocol (IMAP)*. What are these three protocols used for?

How to Answer Exam Questions

- All questions need to be answered in a single document (e.g. MS word or PDF)
- Answer the exam questions in the same order as they are listed in the exam paper.
- Clearly label your answers with the corresponding question and sub-question numbers
- Leave some white space between answers for adjacent questions.
- An example for the layout of answers is given in the next slide.

Layout of Question Answers

Put the number for question and sub-question in separate lines

Q1:

XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



**Add white space between
answers for adjacent questions**

Q2:

(a)

XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

(b)

XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**Answer questions in the same order as they are listed in the
exam paper.**

Handwritten Submission

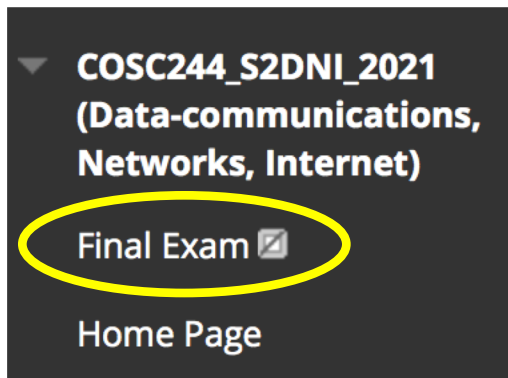
- It is acceptable **only when** you have difficulty in answering questions electronically.
- Follow the same layout requirements given the previous slide
- Scan the handwritten answers to a clean, small, black-and-white PDF
 - The scanned PDF must not be faint and blurry.
 - Your writing must be legible. No marks will be given for unreadable scanned PDF.
 - don't take pictures, use scan apps such as Adobe Scan.

Diagram Drawing

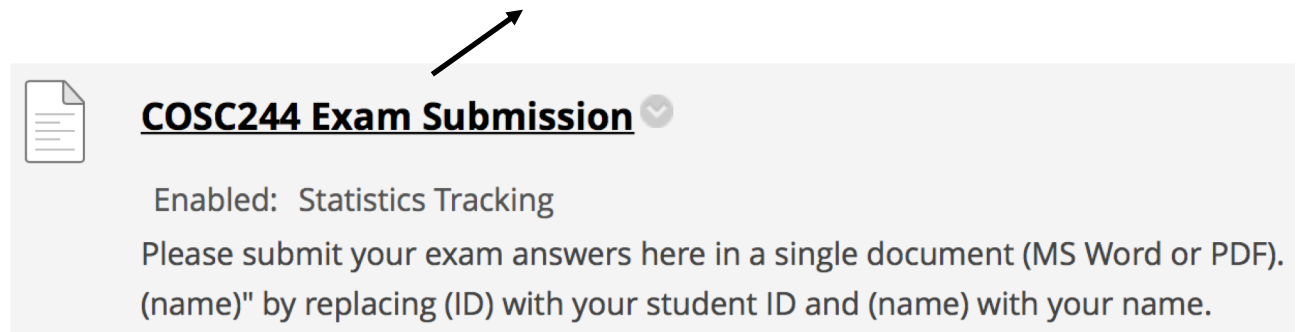
- Some questions may ask you to draw a diagram to illustrate your answer. You can draw it in the following two ways:
 - Draw the diagrams using software such as MS Powerpoint or other online drawing tools.
 - Draw the diagrams manually and then scan them.

Exam Platform

- Blackboard
 - Exam questions will be made available during the exam period.
 - Answer sheet needs to be submitted via Blackboard
 - Name the answer sheet using the following format
COSC244-(ID)-(name)
by replacing (ID) with your student ID and (name) with your full name.



Click the title to submit



Exam Platform

- If you encounter any problem in submitting your answer sheet in Blackboard, send it to the lecturers by email immediately with subject line “COSC244 Exam: (ID) (Name)” replacing (ID) by your student ID and (Name) with your name.
- Don't sent your answer sheet via email if your submission in Blackboard is successful.

Tips on Answering Questions

- Read the questions carefully.
- Use complete sentences, complete words.
 - before is spelled ‘before’, not ‘b4’
- Define any technical terms you use.
- Give an example if it will help demonstrate you understand something.
- Completely answer the questions.
 - If a question is worth several marks, don’t just write a single sentence with the answer stated badly.

An Example of Answer

- Distinguish between FTP and TFTP. (3 marks)
- **Poor Answer:** FTP is the file transfer protocol, and TFTP is the trivial file transfer protocol.
- **Good Answer:** FTP is an application layer protocol allowing file transfers and provides a wide range of options such as multiple file types, compression, and multiple TCP connections. TFTP is a file transfer protocol without a lot of bells and whistles of FTP. FTP uses TCP, a reliable transport service, whereas TFTP uses UDP, an unreliable one.

How to Study for the Exam

- Read and understand the material given in the course handouts.
- Do all the tutorial exercises.
 - They are an excellent source of exam questions.
- THEN practise by doing some past exams which you can get from the library.

<https://www.otago.ac.nz/library/exams/>

A Perfect Film for Introducing Internet

Warriors of the Net

<http://www.warriorsofthe.net/>

Finally

*I wish you every success and hope we'll
meet up again some time*