**REVIEW CONTENTS OF MIDDLE-TERM EXAMINATION**

Subject: Introduction to Computer Networks

Exam format: Multiple choice questions

Number of sentences: 30 questions (Questions in English)

Time: 45 minutes

**CONTENTS:**

**Chapter 1: Computer Networks and the Internet**

- Concepts of end systems, end devices, hosts, network edge, network core, ....

- Identify network devices, types of network cable

- Compare the differences between LAN and WAN

- Operation functions and principles of the layers in the network OSI model, TCP/IP model, IP Stack;

- Data encapsulation process.

- Protocol data units (PDUs) at the layers of the OSI model.

- Abbreviated terms

**Chapter 2: Application layer**

- Application layer applications and corresponding protocols?

- What is the protocol?

- Types of network protocols: HTTP, DHCP, FTP, IP, DNS, SMTP, .... and its working principles.

- Email protocols Email (SMTP, POP, POP3, IMAP, HTTP)

- Domain Name System (Domain Name System) and its functions.

- File distribution time (File Distribution) between client-server; P2P

**Chapter 3: Transport layer**

- Compare characteristics between OSI, TCP/IP model

- What is the data unit at each layer? (eg: packet, segment, frame, bits, ...)

- What is the task of each layer in the OSI, TCP/IP model?

- Functions, characteristics, operating principles, compare the basic differences of TCP and UDP?

- Packet switching and circuit switching

- Port number on the machine running application services (FTP, DNS, SMTP, HTTP, ....)

- TCP/UDP packet structure (TCP/UDP segment format): length of fields in IPv6 and IPv4 packet structure (eg: Source port #, Destination port #, length, checksum, header, ...)

- Flags in the TCP header (ex: SYN, ACK, FIN, RST, …)