

Course Number: C182
Course Name: Introduction to IT
Key Word Review

Included below are keywords for your review and study. Please note, **THE STUDY NOTES DO NOT CONTAIN ALL 27 ACROBATIQ MODULES ~**

1. WHAT is the meaning of the keyword/concept?
2. WHY or HOW is the keyword/concept utilized within the realm and scope of information technology?

Module 2: Information Technology as a Discipline

What is the role/purpose of a System Administrator?

What is the role/purpose of a Database Administrator?

What is the role/purpose of a Web Administrator?

What is the role/purpose of a Network Administrator?

Which administrator role/purpose is responsible for administering hardware within your work environment?

Module 3: Data and Information

What is Data vs. Information?

What is Information Systems vs. Information Technology?

What are the characteristics of quality data?

Module 4: Computer Systems

What is the purpose of I/O Subsystems?

What is IPSO - Input, Process, Output, Storage?

What is Hardware vs. Software?

What is a Network?

What are End-Users?

Identify the ingredients of a computer system.

Module 6: Components of Computer Hardware

What are the four parts of a computer?

What is the purpose of a CPU?

What is the purpose of RAM?

What is the purpose of Expansion Slots vs. Motherboard Components?

What are the types of Memory (RAM/ROM) - volatile vs. nonvolatile?

What is the purpose of the BIOS?

What is the purpose of a hard drive?

What is the purpose of a motherboard?

Module 7: The History of the Computer

Module 9: Network Hardware

What is a Local vs. a Remote network?

What is Telnet and SSH (secure shell)?

What is a Wireless Access Point (WAP)?

What is a Router vs. a Switch?

Why use a Server?

What is Client/Server technology?

What is Peer-to-Peer (P2P) networking?

What are Virtual Machines?

What is an Email vs. Web vs. Database Server?

Describe the four common network topologies: bus, star, mesh, and ring (Know pros/cons of each.)

Module 10: World Wide Web

Why use IP Addresses?

Why use Packet Switching?

What are Data Packets? Why are they important?

Why use Protocols?

Why use Domain Names?

Why use Resource IDs in URLs?

Why use a Domain Name Server?

How does connectivity occur over the Internet or network?

What are the parts of a URL (Protocol/Domain Name/Resource ID)

What is Packet vs. Router Switching?

What is a DNS (Domain Name Server)?

What is the purpose of a Packet?

Module 11: Network Security and Business Implications

What is CIA? Why is it important?

When one user is accessing some data and others are shut out of accessing that data, this is a problem for?

What is the difference between a threat and a vulnerability?

What is the difference between private vs. confidential vs. sensitive, and public?

What are Social Engineering and Phishing attacks?

What is SQL Injection vs. Buffer Overflow attacks?

What is a Trojan Horse vs. Spyware?

What are Malware and DOS attacks?

Module 13: Types of Software

What is Shell vs. Kernel vs. Device Drivers?

What are the types of Servers: Proxy vs. Web vs. Database vs. FTP vs. File vs. Email Servers?

Module 14: Software Licensing

What is a Patent vs. a Copyright?

What is a Software License vs. a Proprietary Software License?

Module 15: Programming and Scripting

What is Machine Language?

What is Binary vs. Octal vs. Hexadecimal?

What is a Compiler vs. an Interpreter?

What is an Algorithm?

What is a Program vs. a Script?

What is N-Tier Software Architecture (presentation vs. logic vs. data)?

Identify the MVC model and its parts.

Module 17: Data Types and the Power of Databases

What are Data Types (boolean, integer, string, date/time)?

What are Database types (flat files vs. hierarchical vs. relational)?

What is the Organization of data (database - table - record - field)?

What is OLTP vs. OLAP?

What is Real-Time vs. Event vs. Batch processing?

What is the purpose of SELECT, FROM, WHERE (SQL keywords)?

What is Extract, Transform, Load (ETL)?

Module 18: Data Management Tools

What is the purpose of BI (business intelligence), and what is a BI system?

What is the purpose of a Data Warehouse?

What is Batch vs. Online vs. Real-Time processing?

What is the purpose of SQL keywords: SELECT - FROM - WHERE?

Review SQL wildcard characters such as *, %.

Review SQL relational operators such as > (greater than), < (less than).

Module 20: The IT Department

Module 21: Introduction to Project Management

Identify four phases of a project.

Describe the characteristics of a project and identify its phases.

Define project initiation, risk and business impact analysis, risk mitigation, and control.

Why do organizations use variance reports?

Why do organizations use resource allocation reports?

Why do organizations use status reports?

Define scope creep.

Module 22: System Development Life Cycle

What is the purpose of the Waterfall in SDLC?

Describe System conversions: direct, parallel, pilot, or phased.

What is the purpose of the preliminary investigation phase of the SDLC?

- a. Discover problem/opportunity.

What is the purpose of the analysis phase of the SDLC?

- a. Determine end-user requirements.
- b. Develop logical modules-steps needed to meet the end-user requirement.

What is the purpose of the logical design phase of the SDLC?

- a. Develop flow chart, data flow diagrams.

What is the purpose of the implementation phase of the SDLC?

- a. Acquire hardware.
- b. Write software.

What is the purpose of the maintenance phase of the SDLC?

- a. Monitor for bugs.
- b. Make corrections.

Why is buffer overflow a problem?

- a. Interject malicious code - security concern.

Module 23: Business Continuity

Explain key components of BCP.

What is addressed during the development of the BCP?

What step follows the inventory of critical activities?

What two factors of interest are determined after critical activities have been identified?

Explain the concepts of data backup.

What are Image Backups vs. Backup Media?

What is a Full Backup vs. an Incremental Backup?

Explain the concept of data mirroring.

What is the purpose of offsite storage?

What is a Hot site vs. a Cold site (Off-site storage)?

Module 24: Current and Emerging Technologies

Discuss the concept of mobile computing.

Define and explain the IoT (Internet of Things).

Discuss and explain the concept of Big Data.

Discuss and explain the concept of Cloud Computing.

Discuss and explain the three key services provided via Cloud Computing (IaaS, PaaS, SaaS).

Discuss and evaluate the role of IT (information technology) in globalization.

Module 26: Ethics

What is HIPPA?

What is FERPA?

What is SEAL? (**Digital Signature and Electronic Authentication Law of 1998**)

What is DMCA? (**copyright YouTube data**)

What is the Privacy Act of 1974 (protect personal data)?