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**CERTIFIED PUBLIC ACCOUNTANT  
FOUNDATION LEVEL 2 EXAMINATIONS**

**F2.3: INFORMATION SYSTEMS**

**DATE: TUESDAY 28, MAY 2024**

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**INSTRUCTIONS:**

- 1. Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
- This examination has **seven questions** and only **five questions** should be attempted.
- Marks allocated to each question are shown at the end of the question.
- The question paper should not be taken out of the examination room.

## QUESTION ONE

JWT Business Company is recommending utilizing technology to enhance its productivity. When buying personal computers for its staff members, it will need a range of application software. The company will use desktop personal computers, mobile devices, and cell phones. The operating system that will boost company efficiency in daily operations must be chosen by the organization's IT manager. The majority of the new software programs that the business will use will be bought from outside vendors. The company is willing to use web services from which it will share information in order to connect with other software components.

### Required:

- a) **Define an operating system and list THREE operations it controls.** (3 Marks)
- b) **Identify the most globally used operating system and describe why Linux is becoming the preferred choice for businesses.** (3 Marks)
- c) **Identify and briefly describe TWO types of application software that a company can use.** (4 Marks)
- d) **State FOUR benefits of wireless applications for Customer Relationship Management to professionals.** (4 Marks)
- e) **Discuss THREE primary external sources of software.** (6 Marks)

**(Total: 20 Marks)**

## QUESTION TWO

Fawaz Enterprise introduced an information system solution last year and they are expecting an external audit. The new information system solution is one of the aspects to be audited. Before the audit, the auditors' team sent some questions to the Chief Executive Officer and you have a task to prepare responses:

### Required:

- a. **Define an Information System.** (2 Marks)
- b. **Outline FOUR primary strategic business objectives of investing in information systems.** (4 Marks)
- c. **Identify and explain FOUR main enterprise applications.** (8 Marks)
- d. **Discuss THREE objectives of an IT audit.** (6 Marks)

**(Total: 20 Marks)**



### QUESTION THREE

A computer network facilitates interpersonal communications allowing users to communicate efficiently and easily via various means: email, instant messaging, chat rooms, telephone, video telephone calls, and video conferencing. Providing access to information on shared storage devices is an important feature of many networks. A network allows sharing of files, data, and other types of information giving authorized users the ability to access information stored on other computers on the network. A network allows sharing of network and computing resources. Users may access and use resources provided by devices on the network, such as printing a document on a shared network printer.

#### Required:

- a) **Identify and briefly describe THREE main types of network topologies.** (6 Marks)
- b) **Discuss any FOUR major components found in a simple company network.** (8 Marks)
- c) **List SIX capabilities of a Database Management System (DBMS).** (6 Marks)

**(Total: 20 Marks)**

### QUESTION FOUR

You are an IT staff in KADCO Company and Claude joined your unit for his internship. Claude asked you as a senior IT expert the following questions about Organizational Support Systems:

#### Required:

- a) **Discuss FOUR stages of the decision-making process and how each can be supported by information systems.** (8 Marks)
- b) **Outline FOUR main types of systems that support the different levels and decisions.** (4 Marks)
- c) **Define Decision Support Systems (DSS).** (2 Marks)
- d) **Define Executive Support Systems (ESSs) and state FOUR ESSs capabilities.** (6 Marks)

**(Total: 20 Marks)**

### QUESTION FIVE

You are an individual consultant at Hema Trading Company (HTC). You also got an appointment letter as project manager and the project is about Information systems development and acquisition.

#### Required:

- a) **Explain FOUR capital budgeting techniques used in assessing long-term capital investments in information systems.** (8 Marks)

- b) **Discuss FOUR kinds of organizational change that can be enabled by information technology.** (8 Marks)
  - c) **Briefly describe the following contemporary approaches to application development:**
    - i. **Joint Application Development (JAD).** (2 Marks)
    - ii. **Rapid Application Development (RAD).** (2 Marks)
- (Total: 20 Marks)**

## QUESTION SIX

Higher education council has so many supervision centers across the country and is exchanging files and valuable information between supervision centers using internet as well as making electronic payments for its services. The institution has also deployed an expert system that uses human knowledge captured in a computer to solve problems that ordinarily require human expertise.

The risk analysis process prioritizes those assets that need to be protected based on the value of the asset, the probability of the threat, the likely impact of the threat in terms of potential loss and the estimated cost of protection. Once the risks have been prioritized the system builders can concentrate on the control point with the greatest vulnerability and potential for loss.

### Required:

- a) **State SIX components of an Expert System.** (6 Marks)
- b) **Define the following terms as used in IT security and risk mitigation:**
  - i. **Encryption** (2 Mark)
  - ii. **An acceptable use policy** (2 Mark)
  - iii. **Mirroring** (2 Mark)
  - iv. **Antivirus Software** (2 Mark)
  - v. **Packet filtering** (2 Mark)
- c) **List FOUR electronic payment systems developed to pay for goods electronically on the Internet.** (4 Marks)

**(Total: 20 Marks)**

## QUESTION SEVEN

You have been appointed as ICT director in DELIFROST (SL) Limited company in Huye. On your first day, some concerns regarding contemporary issues in the Management information system, were raised in the management meeting. Your line manager was quoted saying ‘Introducing a new technology can gives rise to new ethical, social and political issues that must be dealt with on individual, social and political levels’.

Your boss requested you to prepare a training session for other employees and below are the main topics to be covered in this training:

**Required:**

**a) In relation to your line manager’s comments regarding Ethical, Social, and Political Issues:**

**i. Identify and briefly discuss FIVE Moral Dimensions of the Information Age.**

**(10 Marks)**

**ii. Outline FIVE steps managers can use to use to analyze ethical issues and dilemmas in the information society.**

**(5 Marks)**

**b) Define Money Laundering and propose TWO measure to stop it using information technology.**

**(4 Marks)**

**c) Define the term ‘cookies’ as used in information technology.**

**(1 Marks)**

**(Total: 20 Marks)**

**End of question paper**



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