BUSN 315: Management Information Systems

Quiz #2: Suggested Solutions

Fall 2025

INSTRUCTIONS:

- Write your name, date, and section clearly at the top of the first page.

- This is a closed-book quiz. You may not use your textbook, class notes, or electronic devices.

- The quiz consists of three parts: Definitions, Multiple Choice, and Short Answers.

- For definitions, write in complete sentences. Limit each definition to 3 sentences.

- For True/False questions, write TRUE or FALSE for each statement. If the statement is FALSE, provide a brief one- to two-sentence justification.

- For multiple-choice questions, circle the single best answer. Only one option is correct.

- For short-answer questions, write your responses in complete sentences. Limit your response to 5 sentences or fewer.

- The total time allowed is 75 minutes. Manage your time carefully.

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Problem 1. Definitions   (5 Points Each)

Select <u>FOUR</u> items on the list of items below, and provide a definition of the items that you chose.

- Utilitarianism
- Veil of Ignorance (Original Position)
- Green Computing

- Infrastructure as a Service (IaaS)
- Edge Computing
- Virtualization

- Utilitarianism:
  Ethical theory that evaluates actions by their consequences, favoring the option that produces the greatest overall good for the greatest number of people.

- Veil of Ignorance (Original Position):
  Rawls's thought experiment: just rules are chosen as if decision-makers do not know their own social status, talents, or advantages, ensuring fairness and impartiality.

- Green Computing:
  Practices and technologies that reduce the environmental impact of IT across its lifecycle, including energy-efficient hardware/software, efficient cooling, virtualization, and responsible e-waste management.

- Infrastructure as a Service (IaaS):
  Cloud model where organizations rent fundamental computing resources (compute, storage, networking) on demand, while the customer manages OS, middleware, and apps.

- Edge Computing:
  Architecture that processes data near the data source (devices/sensors) to reduce latency, bandwidth usage, and dependence on distant data centers.

- Virtualization:
  Technology that lets multiple virtual machines or environments run on a single physical host, improving resource utilization, scalability, and isolation.

Problem 2. True / False   **(5 Points Each)**

Determine whether the following statements are either TRUE or FALSE. If you deem that the statement is TRUE, there is no need to justify your answer. If you deem that the statement is FALSE, you <u>MUST</u> justify your verdict by providing an explanation.

2.A. The Golden Rule encourages individuals to act toward others as they would wish to be treated themselves.

- TRUE

2.B. The Risk Aversion Principle advises managers to avoid any action that carries financial cost.

- FALSE
- Risk Aversion recommends the option with the least potential harm, not avoiding any action that has a cost.

2.C. Virtualization enables one physical server to host multiple operating-system instances.

- TRUE

2.D. Quantum computing relies on electrical circuits that operate strictly in binary form.

- FALSE
- Quantum computing uses qubits in superposition/entanglement, so it is not limited to strictly binary operation.

Problem 3. Multiple Choice   (4 Points Each)

3.A. Which concept describes the right of individuals to control information about themselves?

   a) Property rights

   b) Privacy

   c) Accountability

   d) Liability

3.B. Which ethical framework focuses on achieving "the greatest good for the greatest number"?

   a) Utilitarianism

   b) Categorical Imperative

   c) Veil of Ignorance

   d) Golden Rule

3.C. What is the primary purpose of a Governance Code within an organization?

   a) Provide internal guidelines aligning ethics with risk management

   b) Establish national laws for information use

   c) Enforce software licensing compliance only

   d) Replace professional codes of ethics

3.D. Which U.S. regulation protects medical records and patient privacy?

   a) HIPAA

   b) GDPR

   c) COPPA

   d) CCPA

3.E. Which cloud-service model provides vendor-hosted applications accessible through a browser?

   a) IaaS

   b) PaaS

   c) SaaS

   d) SDS

Problem 3. Multiple Choice (continued)   (4 Points Each)

3.F. Green computing includes which of the following practices?

    a) Using renewable energy sources for data centers

    b) Increasing server processing speed at any cost

    c) Running duplicate hardware for redundancy only

    d) Restricting employee access to personal devices

3.G. Which statement best defines Edge Computing?

    a) A method of combining quantum and classical computers

    b) A model for outsourcing data storage to the cloud

    c) A practice of encrypting data end-to-end

    d) A network architecture that processes data closer to where it is generated

3.H. The Mainframe Era of computing is characterized by:

    a) Centralized data processing managed by specialists

    b) Decentralized networks of personal devices

    c) Internet-based applications and mobile access

    d) Peer-to-peer file sharing systems

3.I. Which concept measures the full lifecycle expense of owning and operating technology?

    a) Total Cost of Ownership (TCO)

    b) Economies of Scale

    c) Marginal Utility

    d) Cost-Benefit Ratio

3.J. Which ethical principle advises against small actions that could lead to increasingly harmful outcomes if repeated?

    a) Utilitarianism

    b) No-Free-Lunch Rule

    c) Risk Aversion Principle

    d) Slippery Slope Rule

Problem 4. Short Answer   **(10 Points Each)**

4.A. A health-tech firm uses smart watches to monitor patient activity. Describe one advantage <u>and</u> one ethical risk associated with this practice.

- Advantage:
  Continuous, real-time monitoring can improve clinical insight, early detection, adherence, and care coordination.

- Ethical Risk:
  Sensitive health data could be misused or exposed (profiling, discrimination, secondary uses) without informed, revocable consent and strong safeguards.

4.B. An e-commerce company installs tracking cookies to personalize ads. Explain one ethical justification <u>and</u> one privacy concern related to this practice.

- Ethical Justification:
  With clear opt-in, limited retention, and transparency, personalization can improve user experience and relevance.

- Privacy Concern:
  Cross-site tracking and third-party sharing can profile users without meaningful control, and risks include re-identification and lack of data minimization.

- Original Score: _____   - Recovered Score: _____

- Original Date: _____   - Recovered Date: _____