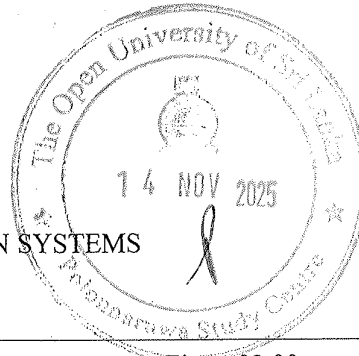


THE OPEN UNIVERSITY OF SRI LANKA
 B.SC. (IT) DEGREE PROGRAMME – 2024/2025
 FINAL EXAMINATION
 ISU3300 – FUNDAMENTALS OF INFORMATION SYSTEMS
 DURATION: TWO HOURS ONLY (02 HOURS)



Date: 14.11.2025

Time: 02.00 p.m. – 04.00 p.m.

Answer any **FOUR (04)** Questions **ONLY**.

Q1.

- a) Define the term “*Information System*”. [03 Marks]
- b) State six (06) components of a computer-based information system. [03 Marks]
- c) Briefly explain what is meant by *heuristic knowledge*. [04 Marks]
- d) Briefly explain two (02) types of data and provide two (02) examples for each. [08 Marks]
- e) Define Enterprise Resource Planning (ERP) and explain its main purpose in an organization. [07 Marks]

Q2.

- a) Define the term “*Monopsony*”. [03 Marks]
- b) Briefly explain the following strategies for gaining competitive advantage.
 - i. Focus
 - ii. Cost Leadership [04 Marks]
- c) Briefly explain four (04) main types of e-commerce. [08 Marks]
- d) Briefly explain Porter’s five (05) competitive forces. [10 Marks]

Q3.

- a) State three (03) types of costs that should be considered when implementing an information system. [03 Marks]
- b) State the three (03) levels of management and mention one information system used at each level. [03 Marks]
- c) Explain a centralized organizational structure and provide two (02) examples of it. [05 Marks]
- d) Briefly explain the term “extranet” and mention two (02) disadvantages of it. [06 Marks]
- e) Briefly explain two (02) advantages and two (02) challenges due to the globalization of companies. [08 Marks]

Q4.

- a) Define Supply Chain Management (SCM). [2.5 Marks]
- b) Briefly discuss the purposes of Supply Chain Management (SCM) using three (03) points. [06 Marks]
- c) Briefly explain “**downsizing**” and state two (02) reasons why companies implement downsizing. [06 Marks]
- d) Provide three (03) alternative approaches that companies can use instead of downsizing [4.5 Marks]
- e) State three (03) benefits of outsourcing. [06 Marks]

Q5.

- a) Briefly explain the Prototype Model in system development. [3.5 Marks]
- b) Mention three (03) drawbacks of the Waterfall model. [06 Marks]
- c) What are the five (05) major application components of a Customer Relationship Management (CRM) system? [05 Marks]
- d) What is the role of primary activities in Porter’s Value Chain Analysis? [02 Marks]
- e) How many components are there in the support activities of Porter’s value chain analysis? Briefly discuss each component. [8.5 Marks]

Q6.

- a) What does **ACM** stand for in the context of professional computing organizations? [02 Marks]
- b) Briefly explain the following basic concepts of ethics in IT.
 - i. Responsibility
 - ii. Liability [04 Marks]
- c) Define the term “**Visual Analytics**”. [03 Marks]
- d) Briefly explain the **Golden Rule** as a candidate ethical principle. [03 Marks]
- e) Briefly explain the following types of computer malware.
 - i. Spyware
 - ii. Rootkits [05 Marks]
- f) Briefly explain four (04) reasons why information systems are vulnerable. [08 Marks]

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