



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN**  
**BUSINESS INFORMATION SYSTEMS**  
**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2024/ 2025 ACADEMIC YEAR**

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**COURSE CODE: ITB 2201**

**COURSE TITLE: INFORMATION SYSTEMS FUNDAMENTALS**

**EXAM VENUE: LAB 5**

**DATE: 14/1/25      STREAM: BSC BUSINESS INFORMATION SYSTEMS**

**TIME: 2 HOURS      EXAM SESSION: 9-11.00 AM**

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**INSTRUCTIONS:**

- 1. Answer any three (3) questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

**Question One – Compulsory (30marks)**

- a) Define the following:
- Data
  - Information
  - Process
  - Knowledge
- (4 Marks)
- b) Explain any four characteristics of valuable information (4Marks)
- c) What is information systems?, discuss the input, processing, output and feedback functions of information systems (4 Marks)
- d) Information Technology can benefit business in many ways, explain any three of these. (3 Marks)
- e) Traditional computer based technologies are classified into standard office and specialized application. Explain any two of each type. (4Marks)
- f) In digital firms both space and time shifting are the norms, explain these two terminologies ( 4 Marks)
- g) Explain examples of digital initiatives features and functions that businesses need to fully utilize to maximise the benefits of the IT systems. (4 Marks)
- h) Name any three tools and technologies for collaboration and teamwork (3 Marks)

**Question Two (20marks)**

- a) The purpose of Business Intelligence is to support better business decision making. Essentially, Business Intelligence systems are data-driven Decision Support Systems (DSS). Business Intelligence is sometimes used interchangeably with briefing books, report and query tools and executive information system. Explain three types of business intelligence systems (9 Marks)
- b) Differentiate between Local Area Network and Wide Area Network (3 Marks)
- c) Discuss the classifications of Information systems (8 Marks)

**Question Three (20marks)**

- a) Transaction processing systems (TPS) are used to record day-to-day business transactions of the organization. Users at the operational management level use them. The main objective of a transaction processing system is to answer routine questions. Provide 4 examples of TPS in today's various business sectors.  
(4 Marks)
- b) Explain how enterprise applications promote business process integration and improve organizational performance. (10 Marks)
- c) Using a diagram discuss the time/space collaboration matrix, giving example of tools in each section  
(6 Marks)

**Question Four (20marks)**

- a) Discuss opportunities and problems that managers in a wide range of organisations face as they attempt to implement these IT applications to add value to their businesses. (20 Marks)

**Question Five (20marks)**

- a) Analyze the relationship between organizations, information systems, and business processes. (10 Marks)
- b) Evaluate the role played by the major types of systems in a business and their relationship to each other (10 Marks)