



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
DEPARTMENT OF COMPUTER SCIENCE & SOFTWARE ENGINEERING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BUSINESS INFORMATION SYSTEMS
3RD YEAR 1ST SEMESTER 2024/2025 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: ITB 2313

COURSE TITLE: Business Process Analysis and Design

EXAM VENUE:LR 5

STREAM: BIS

DATE:8/1/25

EXAM SESSION:9-11.00 AM

TIME:2 HRS

INSTRUCTIONS

- 1. Answer question one and any other two**
- 2. Phones are not allowed**
- 3. All rough work should be done in the examination booklets**
- 4. Candidates are advised not to write on the question paper**

QUESTION ONE (30 MARKS)

- a) State four key highlights on how AI has revolutionized the best practices in business systems analytics. (8 marks)
- b) Elaborate on any six trending issues in business data analytics that would redefine the process of new product launches into the market. (12 marks)
- c) As a business systems analyst for a pharmaceutical company in Siaya County you are expected to give guidance on disease management for the population. Consider a disease that is spreading throughout Siaya County. The company is keen on knowing and experimenting with a model for this new disease before it explodes into an epidemic. The population is divided into three categories: susceptible, infected, and removed.
 - i. Indicate any possible six assumptions for this model (3 marks)
 - ii. Define your variables for this model (3 marks)
 - iii. Knowing that half of the infected population will be removed each week: mathematically model the three various scenarios (6 marks)

QUESTION TWO (20 MARKS)

Requirements specification in business systems analysis may change over time during the course of a project. Discuss how you would handle the adjustments that come with these changes. (20 marks)

QUESTION THREE (20 MARKS)

- a) Think about a novel project idea that you have always had in mind. In the light of this special scenario, discuss the possible risk mitigation and risk avoidance issues that will need consideration during the software management ventures. (10 marks)
- b) Discuss five key performance indicators that would best align to your project idea. (10 marks)

QUESTION FOUR (20 MARKS)

Discuss the any four machine learning models that are used in economic costing for business systems analysis. (20 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss ten various ways in which you would handle difficult stakeholders as a business systems analyst. (10 marks)
- b) Elaborate on how you would introduce a product into the market from a basic project idea. (10 marks)