

The
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UNDERGRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF BACHELOR OF ARTS IN DEVELOPMENT STUDIES

BDS 201: TECHNOLOGY AND DEVELOPMENT

DATE: 2ND APRIL 2026

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

Kijiji County is a semi-arid region in Kenya that has recently received significant funding from national government and international development partners to modernize its infrastructure and public services. The county leadership believes that technology adoption is the fastest path to economic growth and improved quality of life. Several technology-driven projects have been launched simultaneously. These include an e-government platform for citizen services, a digital agricultural extension system for small-scale farmers, a waste-to-energy pilot project, and the introduction of biotechnology-based seeds aimed at improving food security.

Despite the ambitious plans, early outcomes have been mixed. While some urban residents appreciate faster online services, many rural citizens struggle with poor connectivity, low digital literacy, and limited access to devices. Farmers complain that the new agricultural technologies are expensive and do not align with traditional farming practices. County officials report that technology decisions were largely influenced by donor priorities and foreign technical experts, with limited community participation during planning and implementation. As a result, some projects face resistance, misuse, or abandonment shortly after launch.

Ethical and social concerns have also emerged. Civil society groups question data privacy in the e-government system, environmental activists raise concerns about waste-to-energy emissions, and local leaders debate the long-term effects of biotechnology on indigenous knowledge and biodiversity.

Meanwhile, political pressure is mounting for the county to demonstrate tangible development outcomes. Leaders are expected to justify the significant investments made, while ensuring sustainability, inclusivity, and social acceptance of technology-driven development initiatives.

The county is now reconsidering how technology should be planned, transferred, diffused, and managed to genuinely support development rather than create new forms of inequality and dependency.

Required:

- a) As a development consultant, explain how technology in Kijiji County could be re-oriented to reflect social realities rather than purely technical efficiency. **(10 Marks)**
- b) Analyse the hidden assumptions behind the county's technology choices and how these assumptions affect development outcomes. **(10 Marks)**
- c) Evaluate how Kijiji County can redesign its approach to technology planning and management to achieve sustainable and inclusive development. **(5 Marks)**

QUESTION TWO

A policymaker argues:

"If a technology works elsewhere, it should work here as well."

- a) Using a development context, explain why this assumption may fail in practice. **(5 Marks)**
- b) Analyse the consequences of applying this assumption to technology transfer in developing economies. **(5 Marks)**
- c) Propose principles that should guide technology choices in diverse social and economic settings. **(5 Marks)**

QUESTION THREE

A new technology is introduced with high expectations but adoption remains low.

- a) Illustrate how social, cultural, or economic factors can quietly limit technology diffusion. **(5 Marks)**
- b) Analyse why technical superiority alone does not guarantee widespread adoption. **(5 Marks)**
- c) Evaluate strategies that could improve acceptance and long-term use of development technologies. **(5 Marks)**

QUESTION FOUR

Public investment in science and technology often promises improved well-being, yet outcomes vary.

- a) Using a Kenyan example, explain how science and technology initiatives can both advance and undermine public welfare. **(5 Marks)**
- b) Analyse ethical tensions that arise when technological progress conflicts with social values. **(5 Marks)**
- c) Evaluate how policymakers can balance innovation, ethics, and development priorities. **(5 Marks)**

QUESTION FIVE

Large infrastructure and technology projects increasingly involve foreign partners.

- a) Explain how such partnerships can reshape local development priorities. **(5 Marks)**
- b) Analyse the long-term development risks associated with heavy reliance on external technology providers. **(5 Marks)**
- c) Evaluate how developing countries can pursue mutually beneficial technology partnerships while protecting national interests. **(5 Marks)**

QUESTION SIX

Emerging technologies promise solutions to persistent development challenges.

- a) Using a development sector of your choice, explain how new technologies could transform outcomes. **(5 Marks)**
- b) Analyse unintended consequences that may arise from rapid technological adoption. **(5 Marks)**
- c) Evaluate how decision-makers should approach future technology choices under uncertainty. **(5 Marks)**