PAN AFRICA CHRISTIAN UNIVERSITY

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

END OF SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS IN COMMUNITY DEVELOPMENT

JANUARY- APRIL 2026

CAMPUS: ROYSAMBU

DEPARTMENT: COMMUNITY DEVELOPMENT

COURSE CODE: CDC 318

COURSE TITLE: APPROPRIATE TECHNOLOGY IN COMMUNITY DEVELOPMENT

EXAM DATE: APRIL 2026

DURATION: 2 HOURS

TIME:

INSTRUCTIONS

- Read the instructions and questions carefully before you write the answers.
- **Answer any TWO questions**
- *ALL PAC University's examination rules and regulations apply*

QUESTION ONE (20 MARKS)

A development agency introduces a solar-powered water pumping system in a semi-arid community in Kajiado County. The system is technically efficient and environmentally friendly. However, after installation, the project experiences low community ownership. Some community members feel excluded from decision-making, while others lack the skills to maintain the system. Within a year, the system becomes partially non-functional.

a) Identify and explain four principles of appropriate technology that were not adequately applied in this project. **(8 Marks)**

b) Discuss three challenges related to technology transfer illustrated in this case. **(6 Marks)**

c) Propose three strategies a community developer could use to improve technological receptivity and sustainability of the project. **(6 Marks)**

QUESTION TWO (20 MARKS)

An NGO introduces improved cookstoves in an informal settlement in Nairobi to reduce indoor air pollution and deforestation. Although the stoves are affordable and energy-efficient, many households revert to traditional charcoal stoves after a few months. Community members argue that the new stoves do not accommodate their cooking habits and family sizes.

a) Using the framework of technological receptivity, analyze four reasons why the community may have resisted adoption of the improved cookstoves. **(8 Marks)**

b) Examine three ethical considerations that should guide the introduction of new technologies in communities. **(6 Marks)**

c) Discuss three ways in which appropriate technology can contribute to sustainable development in such a setting. **(6 Marks)**

QUESTION THREE (20 MARKS)

A rural women's cooperative receives a grant to purchase a maize milling machine to improve income generation. The machine was imported and requires specialized spare parts that are unavailable locally. After breakdown, the cooperative cannot afford repairs. The project collapses, leading to financial losses and internal conflicts.

a) Critically assess whether the maize milling machine qualifies as appropriate technology. Give FOUR reasons. (8 Marks)

b) Analyze the role of global, national, and local technology transfer frameworks in supporting or failing such projects. (6 Marks)

c) Suggest THREE practical measures to ensure community ownership and long-term sustainability of similar projects. (6 Marks)