



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

AGB 409: AGRICULTURAL INNOVATIONS MANGEMENT AND INTELLECTUAL

PROPERTY RIGHTS

DATE: 4/12/2019

TIME: 2.00-4.00 PM

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## **INSTRUCTIONS:**

Answer question one and two other questions

### **QUESTION ONE (30 MARKS)**

- a) Using empirical examples define the following terms
- i. Innovation (2 marks)
  - ii. Innovation Systems (2 marks)
  - iii. National innovation systems (2 marks)
  - iv. Intellectual property rights (2 marks)
  - v. Agricultural knowledge systems (2 marks)
- b) What are the important principles of an agricultural innovation system? (6 marks)
- c) What factors influence adoption of agricultural innovations? (8 marks)
- d) Describe three innovations strategies used in Kenya to develop and disseminate agricultural technologies (6 marks)

### **QUESTION TWO (20 MARKS)**

- a) Several improved agricultural technologies have been developed in the maize value chain but adoption and productivity is still low. To solve the problem of low adoption in the maize value chain, describe five phases stakeholders will follow to establish an innovation platform to address the problem (10 marks)

- b) Using illustrations describe innovation platform for technology adoption approach? (10 marks)

**QUESTION THREE (20 MARKS)**

- a) Describe five priority sectors for the Science, Technology and Innovation Policy (10 marks)
- b) What is the role of research and development in promoting agricultural innovations? (5 marks)
- c) What are the pillars of capturing value of agricultural innovations? (5 marks)

**QUESTION FOUR (20 MARKS)**

- a) Describe four ways that you can use to protect your intellectual property or idea (8 marks)
- b) With relevant examples, differentiate between the National Agricultural System (NARS), Agricultural Knowledge Systems and the Agricultural Innovation Systems (AIS). In each category describe the stakeholders, organization, approaches, roles, capacities and outcomes (12 marks)

**QUESTION FIVE (20 MARKS)**

- a) What is the role of policy in promoting agricultural innovations and technologies? (5 marks)
- b) Explain five main challenges facing cassava value chain in Machakos County and explain how innovation platform approach could be applied to address the challenges to upgrade cassava value chain (5 marks)
- c) A mango commercial village in Makueni County has developed diversified mango products for commercialization. What advice would you give to the innovation platform on the stages to follow in registering their product, promoting and commercializing it (10 marks)