



# MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR  
BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT AND TRADE

AGB 409: AGRICULTURAL INNOVATIONS AND INTELLECTUAL PROPERTY  
RIGHTS

DATE: 6/5/2019

TIME: 8:30 -10:30 AM

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**INSTRUCTIONS: Answer question ONE and any other TWO questions**

## QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the following terms with relevant examples
- i) Agricultural innovation (3 marks)
  - ii) Agricultural innovation system (3 marks)
  - iii) Innovation hub or platform (3 marks)
- b) What are the three key elements of an agricultural innovation system (3 marks)
- c) Describe the three stages by which a person adopts an innovation (3 marks)
- d) Explain five main factors that influence adoption of an agricultural innovation (5 marks)
- e) Using relevant examples and diagrams describe the innovation platforms for technology adoption value chain approach (5 marks)
- f) Describe five examples where intellectual property rights can be applied in the Agricultural subsector. (5 marks)

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

- a) Using dairy value chain, list and describe four steps of the initiation phase of establishing an innovation platform. (10 marks)
- b) What is the role of policy in promoting agricultural innovations and technologies? (10 marks)
- c) Explain five steps of registering copyrights in Kenya. (5 marks)

### **QUESTION THREE (20 MARKS)**

- a) A cassava commercial village in Kitui (Innovation platform) has developed a cassava based product which is now ready 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)
- b) Describe five priority for the science technology and innovation policy. (10 marks)

### **QUESTION FOUR (20 MARKS)**

- a) With relevant examples, differentiate between the National Agricultural System (NARS), Agricultural Knowledge Systems and the Agricultural Innovation Systems (AIS). In each category (system) describe the stakeholders, organization, approaches, roles, capacities and outcomes. (10 marks)
- b) Outline three 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. (10 marks)

### **QUESTION FIVE (20 MARKS)**

- a) Using relevant illustrations, discuss five agricultural innovation strategies in Kenya. (10 marks)
- b) Using orange fleshed sweet potatoes or quality protein maize value chains, explain and present diagrammatically the innovation platform for technology adoption value chain approach. (10 marks)
- c) What is the role of research and development in promoting agricultural innovations? (5 marks)