



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION AGB

409: AGRICULTURAL INNOVATIONS AND INTELLECTUAL PROPERTY RIGHTS

DATE:

TIME:

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Define the following terms
 - 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) List 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) List and describe five examples where intellectual property rights can be applied in Agriculture (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) At the establishment phase of an innovation platform of a dairy value chain briefly discuss action planning, implementation/operation and challenges (10 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) List and explain five steps of registering copyrights in Kenya (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) The biggest challenges facing cassava value chain in Machakos County are low production, lack of quality seeds (cuttings), few value addition options and processing facilities. As an agribusiness expert explain how innovation platform approach could be applied to address the challenges and upgrade cassava value chain (10 marks)

QUESTION FIVE (20 MARKS)

- a) Using relevant illustrations, list and briefly 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)