



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (AGRIBUSINESS MANAGEMENT AND TRADE)

AGB 409: AGRICULTURAL INNOVATIONS MANGEMENT AND INTELLECTUAL

PROPERTY RIGHTS

DATE: 20/8/2021

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer **Question ONE** and **ANY other TWO** questions

QUESTION ONE (30 MARKS)

- a) Using relevant examples define the following terms
- The establishment stage of an innovation platform (2 marks)
 - Agricultural technology (2 marks)
 - National innovation systems (2 marks)
 - Intellectual property rights (2 marks)
 - Value chain approach of an innovation platform (2 marks)
- b) List and discuss three key elements of an agricultural innovation system (6 marks)
- c) Describe four factors that influence adoption of agricultural innovations (8 marks)
- d) Describe three innovations strategies used in Kenya to promote and upscale agricultural technologies (6 marks)

QUESTION TWO (20 MARKS)

- a) Several improved agricultural technologies have been developed in the agricultural value chains but adoption and productivity are still low. Using any agricultural value chain, describe five phases' stakeholders will follow to establish an innovation platform to address the problem of low adoption (10 marks)
- b) Using appropriate examples, describe fives areas where intellectual property rights can be applied in the agricultural sub-sector (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe five different ways of protecting intellectual property rights in Kenya (5 marks)
- b) Describe five priority sectors for Science, Technology and Innovation Policy in Kenya (5 marks)
- c) Describe five main differences between the National Agricultural System (NARS), Agricultural Knowledge information Systems (AKIS) and the Agricultural Innovation Systems (AIS) (10 marks)

QUESTION FOUR (20 MARKS)

- a) Explain five roles of policy in promoting agricultural innovations and technologies? (5 marks)
- b) Explain how innovation platform approach could be applied to address the challenges in the cassava value chain. (5 marks)
- c) Using green gram or maize value chains, explain and present diagrammatically the innovation platform for technology adoption value chain approach. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Describe five main activities undertaken in an agricultural innovation platform to achieve desired social and economic outcomes. (10 marks)
- b) 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)