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University Examinations 2010/2011

FIRST YEAR, FIRST SEMESTER EXAMINATIONS FOR DIPLOMA IN AGRICULTURAL EDUCATION AND EXTENSION

BIO112: ENTOMOLOGY AND PLANT PATHOLOGY

DATE: DECEMBER 2010

TIME: 1½ HOURS

INSTRUCTIONS: Answer Question *one* which is Compulsory and any other *two* questions

QUESTION ONE – (30 MARKS)

- (a) State the importance of studying Entomology and plant pathology. (4 Marks)
- (b) Give four classes of arthropods and indicate an example in each case. (4 Marks)
- (c) Highlight four features common in all respiratory surfaces. (4 Marks)
- (d) Give four functions of cuticle in an insect. (4 Marks)
- (e) Define the following terms as used in plant pathology:
 - (i) Pathogenesis
 - (ii) Epidemiology
 - (iii) Susceptibility
 - (iv) Etiology (4 Marks)
- (f) Describe five ways in which plant diseases can be classified. (5 Marks)
- (g) Explain what you understand by the term “Disease Triangle” (5 Marks)

QUESTION TWO – (15 MARKS)

- (a) It has been said that insects are the most diversified group of animals on earth, consisting of 50.8% of all living things. They therefore have both positive and negative impacts on agriculture. Discuss this statement. (10 Marks)
- (b) Give five general features common in all insects. (5 Marks)

QUESTION THREE – (15 MARKS)

- (a) State five different types of insect mouthparts and explain their modifications towards feeding. (10 Marks)

(b) State five parts/structures of a general insect mouth.

(5 Marks)

QUESTION FOUR – (15 MARKS)

With aid of a diagram, describe the process of transport and blood circulation in a named insect.

(15 Marks)

QUESTION FIVE – (15 MARKS)

(a) Give five necrotic symptoms of fungal diseases in plants.

(5 Marks)

(b) Give five measures of controlling fungal diseases in plants.

(5 Marks)

(c) Name at least five different bacterial pathogens and indicate the disease(s) they cause in plants.

(5 Marks)