



The Co-operative University of Kenya

END OF SEMESTER EXAMINATION AUGUST-2019

EXAMINATION FOR THE DIPLOMA IN AGRIBUSINESS MANAGEMENT

(YR I SEM II)

UNIT CODE: DAFS 2117

UNIT TITLE: NATURAL PRODUCTS PROCESSING TECHNOLOGY

DATE: 12TH AUGUST, 2019

TIME: 9:00 AM – 11:00 AM

INSTRUCTIONS:

- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE

- (a) State **Two** ways in which proteins promote weight loss. (2 Marks)
- (b) Differentiate between :
- Probiotics and Prebiotics. (2 Marks)
 - Nutraceuticals and Functional foods (2 Marks)
- (c) Define soluble fibre and state its two roles in the boldy. (3 Marks)
- (d) Briefly explain two roles of lipids. (3 Marks)
- (e) Discuss protein denaturation and folding. (4 Marks)
- (f) Draw an amino acid structure clearly indicating its subsequent components. (4 Marks)
- (g) State 3 functions of cholesterol. (3 Marks)
- (h) List any 3 essential and 3 non-essential amino acids. (6 Marks)
- (i) Define a natural product. (1 Mark)

QUESTION TWO

- (a) Discuss dietary fiber and explain its functions. (10 Marks)
- (b) Briefly explain five roles of proteins (10 Marks)

QUESTION THREE

- (a) i) List four principal characteristics of gums (4 Marks)
- ii) Outline four characteristics of resins (4 Marks)
- (b) i) Discuss Resin harvesting by Cup and Lip method (8 Marks)
- ii) State four advantages of Bore hole extraction of Rosin. (4 Marks)

QUESTION FOUR

- (a) The Kenyan government has controlled the trade in the specimens of Aloe species. Explain the guiding principles. (10 Marks)
- (b) Explain five issues and challenges of aloe conservation and management (10 Marks)

QUESTION FIVE

- (a) Discuss carbohydrate classification (9 Marks)
- (b) Discuss five functions of carbohydrates (10 Marks)
- (c) Give a chemical equation resulting in the formation of glucose. (1 Mark)