

University of Ruhuna - Faculty of Technology
Bachelor of Biosystems Technology Honours Degree
Level 4 (Semester II) Examination, November/December 2023
Academic year 2020/2021

Course Unit: BSTF 4214 – Crop and Livestock Production Systems (Theory)
Duration: 2 hours

Index No:

INSTRUCTIONS:

Number of pages: Two (2)

Answer four (4) questions only.

1.

- (a) What do you mean by sustainable agriculture? (10 marks)
- (b) List out the reasons for adopting sustainable agricultural principles (20 marks)
- (c) Briefly explain the factors to be considered while selecting crops for mixed cropping system. (30 marks)
- (d) “The goal of integrated farming is to optimize the resource use of, minimize waste, and create a sustainable and diversified farming system”. Design an integrated farm model for low country wet zone to achieve above goals. (40 marks)

2.

- (a) What is the daily protein requirement of an average adult person? (01 line, 05 marks)
- (b) What is the average per capita protein supply in Sri Lanka? (01 line, 05 marks)
- (c) Mention the importance of further expansion of animal production in the country, with emphasis on the quantity and origin of proteins. (05 lines, 20 marks)
- (d) Explain how integrated farming assures a balanced diet for the farming families. (05 lines, 10 marks)
- (e) Mention five advantages of dairy farming. (05 lines, 10 marks)
- (f) What do you mean by “value addition”? (02 lines, 20 marks)
- (g) Calculate the percentage value addition takes place in making yoghurt from 1 L of fresh milk. (10 lines, 30 marks)

3.

- (a) Explain why the goat milk is preferred over cow milk in feeding patients and elderly people. (04 lines, 20 marks)
- (b) Mention five activities involved in piglet processing and briefly describe each activity. (15 lines, 30 marks)
- (c) What do you mean by poultry processing? (02 lines, 05 marks)
- (d) Describe how the bipedal stance is useful for feeding of goats under the extensive management. (05 lines, 15 marks)
- (e) Explain the reasons for the decline in the extensive system of livestock production in the country. (05 lines, 15 marks)
- (f) Describe the importance of colostrums feeding for newly born farm animals. (05 lines, 15 marks)

4.

- (a) Name three fodder varieties and two grass varieties found in Sri Lanka. (04 lines, 10 marks)
- (b) Calculate the daily dry matter and fresh matter requirement of a cow weighing 400 kg. (05 lines, 15 marks)
- (c) What do you mean by pasture conservation? (03 lines, 05 marks)
- (d) Describe the difference between hay and silage. (04 lines, 20 marks)
- (e) Name 04 parameters used to evaluate silage quality and 03 types of silos used in silage production. (05 lines, 15 marks)
- (f) Mention 05 importances of livestock housing. (05 lines, 10 marks)
- (g) Evaluate how the private sector involvement has influenced the development of poultry industry in Sri Lanka. (10 lines, 25 marks)

5.

- (a) What do you mean by Food insecurity. (10 marks)
- (b) List out the factors affecting the population growth in the world. (20 marks)
- (c) Does the world produce enough food to feed itself? Justify your answer (30 marks)
- (d) Describe the effects of food and nutrition on different health outcomes at the different population levels. (40 marks)

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