

University of Ruhuna- Faculty of Technology  
Bachelor of Biosystems Technology Honours  
Level 1 (Semester I) Examination, June/July 2023  
Academic year 2021/2022

Course Unit: BST1152 Animal Physiology (Written)

Duration: 1 1/2 hours

Index no:.....

**INSTRUCTIONS:** Read the instructions carefully before answering the paper.

Number of pages: Three (3)

Write your **index number** in the space provided above.

Part I – Answer all the questions.

Part II - Answer only (2) questions

Mobile phones and calculators are not permitted.

**Part I**

1. The following questions are based on the various organ systems, their physiology in the human body and associated components. Carefully read the given questions and provide answers within the given space.

a) List out 3 physical properties of water and how each property is important for proper body functioning (9 marks).

- i.....
- ii.....
- iii.....

b) Name 3 types of extracellular fluids and the location of those fluids (9 marks).

- i.....
- ii.....
- iii.....

c) Name any three (3) plasma proteins (3 marks).

- i.....
- ii.....
- iii.....

d) List out any 3 primary functions of the digestive tract (6 marks).

i. ....

ii. ....

iii. ....

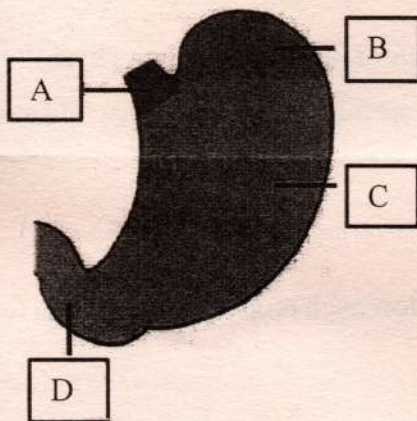
e) Name three main salivary glands (3 marks).

i. ....

ii. ....

iii. ....

f) Identify the A, B, C and D regions of the human stomach indicated in the given diagram below (8 marks).



A-.....

B-.....

C-.....

D-.....

g) Mention the age range of puberty of following farm animals (6 marks).

i) Cattle - .....

ii) Sheep - .....

iii) Swine - .....

h) Name any three (3) polyestrous farm animals (6 marks).

i) .....

ii) .....

iii) .....

## Part II

Answer only two questions.

2. For effective absorption, the surface area of the intestinal wall has been increased with structural modifications.

a)

i. Name any of the three above-mentioned modifications. (6 marks)

ii. State three main regions of the small intestine. (6 marks)

b) What is chemical digestion of foods? Describe the chemical digestion of food along the digestive system starting from the mouth. (13 marks)

3. The circulatory system consists of blood vessels that include arteries, veins, and capillaries. These blood vessels, heart and lungs continuously circulate blood throughout the body.

a) Write any 4 functions of blood. (4 marks)

b) Describe warm blooded and cold-blooded animals with two examples for each category. (6 marks)

c) Describe how blood and material circulation occur in the heart, lungs, and main blood vessels. (15 marks)

4. Carnivores and omnivores possess a simple monogastric digestive system.

a) Describe the monogastric animals and ruminants with two examples for each category. (8 marks)

b) Name main compartments of the rumen. (4 marks)

c) Describe the rumination process and its' advantages. (13 marks)

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