Bago University
Department of Zoology
Second Semester Examination, September 2019

Third Year (B.Sc)	**Zool. 3111**
(Zoology Specialization)	**Elementary Physiology**
Answer ALL questions	**Time Allowed: (3) Hours**

I. State TRUE or FALSE to the following statements. **(10 marks)**

1. In all living organisms energy requirements are obtained from outside sources.
2. Neutral fats are the complex lipids.
3. Glucose is converted into glycogen in the liver.
4. Plants contain a red pigment called carotene.
5. Major function of kidney in higher vertebrates is osmoregulation.
6. The sugar in the urine increases its osmotic pressure.
7. A major function of the tears is lubrication and moistening of eye surface.
8. In humans, five different antibody types have been found.
9. The kidney and liver are chiefly involved in endocrine functions.
10. Thyroids hormones are important for maturation of brain.

II. Complete the following statements with appropriate words. **(10 marks)**

1. Proteins are principal constituents of ------.
2. Dextrins are intermediate between starch and ------.
3. Fats and fat like substances are called ------.
4. Lack of vitamin A results in the drying up of the ------.
5. In insects biotin is very essential for growth and ------.
6. Vitamin K is necessary for the ------ of blood in higher animals.
7. From the bladder the urine is transported to the exterior by ------.
8. In the fetus, the liver produces ------ erythrocytes.
9. Valves in the lymphatic vessels promote a one - way ------.
10. The endocrine glands are also called ------ glands.

III. Answer ALL questions **(10 marks)**

1. State the food constituents involved in body builders.
2. Classify animals according to their diet.
3. Describe the ascending colon in large intestine.
4. Give a short note on sense of taste.
5. List four basic type of endocrine secretion in vertebrate.

IV. Answer ALL questions **(20 marks)**

1. Describe the sources of food constituents.
2. Write an interesting account on vertebrate liver.
3. Give an account on accessory excretory structure in human.
4. Write short notes on RBCs in mammals.

V. Answer ANY THREE questions **(30 marks)**

1. Explain about food constituents involved in energy producers.
2. Explain about the properties of neutral fats.
3. Write an interesting account on Anti sterility vitamin.
4. Discuss as far as you can on lactose intolerance in people.
5. State the function of lymphocyte in the immune response.
6. Describe about the neuron with a suitable illustration.

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