

CHUKA



UNIVERSITY

**SUPPLEMENTARY / SPECIAL EXAMINATIONS**

**THIRD YEAR EXAMINATION FOR THE AWARD OF BACHELOR  
OF**

**BIOC 313 : NUTRITIONAL BIOCHEMISTRY**

**STREAMS: Y3S1BSc. BIOMEDICAL SCIENCE, BIOCHEMISTRY**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 18/11/2020**

**2.30 P.M - 4.30 P.M.**

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**INSTRUCTIONS:**

- i. Answer Question One and any other Two Questions
- ii. Do not write on the question paper

**Question One (30 marks)**

- a. Briefly discuss the regulation of human pancreatic juice secretion. (5 marks)
- b. Describe the digestion of food in the small intestines of human being. (6 marks)
- c. Discuss the absorption of minerals in monogastric animals (6 marks)
- d. With the aid of a diagram, elucidate the pre-caecal digestion in the horse. (7 marks)
- e. Explain in detail the ruminant digestive development from birth until maturity. (6 marks)

**Question Two (20 marks)**

- a. Discuss in detail the regulation of gastric secretion in human beings. (10 marks)
- b. The pancreas is a very important organ in human digestion. Discuss. (10 marks)

**Question Three (20 marks)**

- a. The pig is an example of a monogastric organism, Discuss the digestion of food in the mouth and stomach of the pig. (10 marks)

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- b. Discuss in details the absorption of the digested carbohydrates, fats and proteins in monogastric animals (10 marks)

**Question Four (20 marks)**

- a. With the aid of a diagram, discuss the ruminant digestive anatomy and function. (10 marks)
  
  - b. Based on the diets they prefer, ruminants can be classified into distinct feeding types: Discuss (10 marks)
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