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**University Examinations 2015/2016**

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH

**HPP 3207: PRINCIPLES OF HUMAN NUTRITION**

 **DATE: NOVEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Explain nitrogen balance and describe its two state. (5 Marks)
2. Highlight two factors that influence availability and utilization of vitamins. (6 Marks)
3. Explain two factors that affect absorption of iron in the body. (4 Marks)
4. Explain using examples the relationship between nutritional status and health, low-birth weight and increased mortality. (6 Marks)
5. Describe four components of gastric juices and the role they play in digestion. (9 Marks)

**QUESTION TWO (20 MARKS)**

1. The small intestine is the primary site for digestion and absorption of nutrients. Describe how it is able to accomplish these roles. (7 Marks)
2. Discuss five functional categories of proteins. (5 Marks)
3. Discuss four direct methods of nutrition assessment. (8 Marks)

**QUESTION THREE (20 MARKS)**

1. Dietary fibre is an important component of a diet. Explain the body’s physiological response to dietary fibre. (10 Marks)
2. Explain in detail the role of the following organs in metabolism:
3. Liver
4. Gall bladder
5. Pancrease (10 Marks)

**QUESTION FOUR (20 MARKS)**

1. Explain the phenomenon referred to as double burden of malnutrition. (2 Marks)
2. Define the term lipoprotein and describe four types of lipoprotein stating their physiological role. (10 Marks)
3. Discuss four physiological body functions of electrolytes. (8 Marks)