

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya.**

**Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** [**info@mucst.ac.ke**](mailto:info@mucst.ac.ke)

**University Examinations 2014/2015**

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND NUTRITION AND FOOD SCIENCE AND TECHNOLOGY

**AFN 3275: PRINCIPLES OF HUMAN NUTRITION**

**DATE: APRIL 2015 TIME: 2 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Define the following:
2. Over nutrition
3. Diet
4. Lipoproteins
5. Nutrients
6. Fasting glucose level (5 Marks)
7. Discuss the major functions of lipids (5 Marks)
8. Describe the symptoms of dehydration (5 Marks)
9. Briefly discuss the major zones of digestion (8 Marks)
10. Village A was cumbered with a medical problem where most people were found not to have clear vision in dark places, other had milky substances on the cornea and ulceration of the eye. Briefly describe the cause of the problem, solution to the problem and give recommendation citing examples (6 Marks)
11. Explain the difference between nutrients and food (1 Mark)

**QUESTION TWO (20 MARKS)**

1. Discuss the importance of dietary fibres in the human body (5 Marks)
2. Discuss the major functions of carbohydrates (15 Marks)

**QUESTION THREE (20 MARKS)**

1. Explain the difference between:
2. Food stuff and food component
3. Food additives and food contaminants (2 Marks)
4. Briefly describe the role of insulin and glucagon in human body (8 Marks)
5. John consumed a meal with heavy fat uptake. How did his body function to maintain his energy balance (10 Marks)

**QUESTION FOUR (20 MARKS)**

1. State the difference between fat soluble and water soluble vitamins (6 Marks)
2. Discuss the different types of lipoproteins (8 Marks)
3. Jane broke her leg and was recommended to take a diet supplemented with calcium. State the major food sources you would recommend and discuss benefits obtained from calcium supplementation (6 Marks)