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**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY

**OF**

**AGRICULTURE AND TECHNOLOGY**

# University Examinations 2012/2013

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN HUMAN NUTRITION AND DIETETICS**

**AFD 2106 :** **HUMAN ANATOMY**

**DATE: AUGUST 2012 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND**

**ANY OTHER TWO QUESTIONS IN SECTION B.**

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**SECTION A: ANSWER ALL QUESTIONS**

**Q1.** Define the following terms as used in human anatomy:

[10 marks]

(a) Pectoral gridle. [1 mark]

(b) Pericardium. [1 mark]

(c) Osteoclast. [1 mark]

(d) Rheumatic disorder. [1 mark]

(e) Pneumatic bone. [1 mark]

(f) Neuron. [1 mark]

(g) Hormone. [1 mark]

(h) Glands. [1 mark]

(i) Body tissue. [1 mark]

(j) Gonads. [1 mark]

**Q2.** Explain at least five characteristic features of a cartilage that distinguishes it from a bone. [10 marks]

**Q3.** With the aid of a diagram, differentiate anatomy of the following organelles of the human cell: [10 marks]

(a) Nucleolus and nuclear envelop. [2 marks]

(b) Golgi complex and Golgi vesicle. [2 marks]

(c) Smooth endoplasmic reticulum and rough endoplasmic

reticulum. [2 marks]

(d) Ribosome and peroxisome. [2 marks]

(e) Lysosome and centriole. [2 marks]

**Q4.** Describe both superficial and internal anatomy of human kidney.

[10 marks]

**Q5.** With the aid of a diagram, describe the pulmonary and systemic circuits of blood circulation. [10 marks]

**Q6.** In each case, state at least five afferent and efferent cranial nerves.

[10 marks]

**SECTION B: ANSWER ANY TWO QUESTIONS**

**Q7.** (a) Describe stepwise processes of bone formation, mentioning

the cells involved. [10 marks]

(b) Explain at least five distinguishing characteristics of epithelial tissues and connective tissues. [10 marks]

**Q8.** (a) With the aid of a diagram, describe three main parts of

human brain. [10 marks]

(b) Explain at least five distinctive features between an axon and a dendrite. [10 marks]

**Q9.** (a) Discuss at least five anatomical body planes used to locate

visceral organs. [10 marks]

(b) Human body is organized into cavities necessary in physical examination as well as anthropometric assessments. Giving examples, describe two main body cavities, mentioning their constituents and specific organs in the cavities.

[10 marks]