



(The University of Choice)

**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**UNIVERSITY EXAMINATIONS  
2012/2013 ACADEMIC YEAR**

**FIRST YEAR FIRST TRIMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF SCIENCE IN HEALTH PROFESSION EDUCATION**

**COURSE CODE: NUR 101**

**COURSE TITLE: ANATOMY I**

**DATE: Thursday 10<sup>th</sup> January 2013 TIME: 9.00a.m.-12.00noon**

**INSTRUCTIONS TO CANDIDATES**

1. Time – 3hours
2. Write your University registration number on every sheet of paper used
3. Answer all questions in all the three sections
4. Section A comprises of Multiple Choice Questions
5. Section B comprises of short Answer Questions
6. Section C comprises of Essay Questions

This Paper Consists of 3 Printed Pages. Please Turn Over ►

**SECTION A: ANSWER ALL: 20 MARKS**

Choose the most correct answer for each of the following. Only one choice is correct.

(1 mark each)

1. The following statements is true about anatomy except
  - a. The scientific discipline that investigates the structure of the body
  - b. Means to dissect
  - c. To cut apart and separate the parts of the body
  - d. The study of the body
2. Select the trait that does not characterize muscle tissue in general
  - a. Irritability
  - b. Contractility
  - c. Extensibility
  - d. Inelasticity
3. Individual fibers of skeletal muscle have fine sheath of connective tissue called a(n) \_\_\_\_\_.
  - a. Epimysium
  - b. perimysium
  - c. Endomysium
  - d. Fascia
4. Sarcomeres run from \_\_\_\_\_
  - a. A band to A band
  - b. Z line to Z line
  - c. H zone to H zone
  - d. I band to I band
5. The rough endoplasmic reticulum (RER) in the cells are because of the presence of
  - a. Ribosomes on the surface of ER
  - b. Mitochondria on the surface of ER
  - c. Voluntin on the surface of ER
  - d. Sulphur granules on the surface of ER
6. Cell cytoskeleton is made up of
  - a. Proteinaceous filaments
  - b. Calcium carbonate granules
  - c. Cellulose deposit
  - d. Cellulosic myofibrils
7. Smooth Muscle is
  - a. Voluntary and Spindle Shaped
  - b. Voluntary and Striated
  - c. Involuntary and Spindle Shaped
  - d. Involuntary and Striated
8. Each myosin filament is surrounded by \_\_\_\_ actin filaments.
  - a. Two
  - b. Four
  - c. Six
  - d. Seven
9. Which type of muscle cell is multinucleated?
  - a. Cardiac
  - b. Smooth
  - c. Skeletal
  - d. All of the Above

10. What is an example of a smooth muscle?
  - a. Masseter (Face)
  - b. Bladder
  - c. Heart
  - d. Pronator Teres (Forearm)
11. The four basic tissue types are
  - a. Epithelial, simple, stratified, skeletal
  - b. Connective, nervous, fluid, smooth
  - c. Muscle, nervous, simple, stratified
  - d. Epithelial, connective, muscle, nervous
12. The axial skeletal is divided into
  - a. Skull, vertebral column, axial
  - b. Skull, vertebral column, thoracic cage
  - c. Skull, hyoid, thoracic cage
  - d. Skull, vertebral column, phalanges
13. Match the following organelles with their function (1 mark each)
  - A. Mitochondria
  - B. Vacuoles
  - C. Cilia
  - D. Rough endoplasmic reticulum
  - E. Smooth ER
  - F. Golgi Apparatus
  - G. Nucleus
  - H. Nucleolus
  - I. Cell membrane
  - J. Lysosome
  - K. Cytoplasm
  - L. Peroxisome

- \_\_\_\_\_ Protein synthesis
- \_\_\_\_\_ maintain cell structure and intracellular climate
- \_\_\_\_\_ intermediate area for storage and cell transport
- \_\_\_\_\_ Movement of the cell
- \_\_\_\_\_ Lipid synthesis and transport
- \_\_\_\_\_ "Powerhouse" of the cell makes ATP
- \_\_\_\_\_ Storage areas, mainly found in plant cells
- \_\_\_\_\_ Packages and distributes cellular products

**Section B: ANSWER ALL: 40 MARKS**

1. Outline the major body landmarks of the following
  - a. Abdomen (6 mark)
  - b. Upper eextremities (6 marks)
2. Describe the general characteristics associated with muscle tissue (10mark)
3. Explain the important functions of muscle tissue (10mark)
4. Outline the functions of skeleton (8marks)

**Section C: ANSWER ALL: 40 MARKS**

1. Discuss the sliding theory of muscles (20 marks).
2. Describe the structures of a long

