



Technical university of Mombasa
Faculty of mechanical engineering and technology
DEPARTMENT OF MEDICAL ENGINEERING
DIPLOMA IN MEDICAL ENGINEERING (DME 114s)
AAB 2250 Human Anatomy and Physiology(paper B)
Semester: Examination
Series : August 2014
Time :2 Hours

INSTRUCTIONS:

You should have the following for this paper

-Answer booklet

This paper consists of FIVE questions.

Answer Question ONE (compulsory) and any other TWO Questions.

Question ONE

- (i) Define the term anemia 2
marks
- (ii) State TWO functions of neutrophils 2
marks
- (i) State TWO functions of peroxisome organelle 2
marks
- (ii) List the functions of musculoskeletal system 2
marks
- Explain the following terms;
- (i) Ligaments 2
marks
- (ii) Joints 2
marks
- (d) Name the bones of vertebral column 4
marks
- (e) (i) Explain the meaning of closed circulatory system 2
marks
- (ii) State TWO functions of epithelial cells 2
marks
- (f) (i) Name bones of auxiliary skeleton 2
marks

(ii)List TWO types of muscles found in a human body 2
marks

(g) (i) Name the main minerals stored in the bones 2
marks

(ii)List TWO functions of connective tissue 2
marks

(h)Name causes of chronic bronchitis 2
marks

Question TWO

(a)Explain how cells acquire and utilize energy 5
marks

(b)Explain intercellular junctions that provide for structural integrity of the epithelium 5
marks

(c)Outline the procedure for measuring blood pressure with sphygmomanometer 5
marks

Question THREE

(a)Explain systemic blood circulation 7
marks

(b)Describe the causes of the following musculoskeletal disorders;
(i)Arthritis

4 marks

(ii)Osteomalacia
4 marks

Question FOUR

(a) Explain the external respiration 7
marks

(b)Explain the transport of substances across a plasma membrane 8 marks

Question FIVE

(a)Describe factors which causes high blood pressure 8
marks

(b)Explain gaseous exchange in the alveoli 7
marks