

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI**  
**SCHOOL OF HEALTH TECHNOLOGY**  
**DEPARTMENT OF BIOMEDICAL TECHNOLOGY**  
**2015/2016 HARMATTAN SEMESTER EXAMINATION**

**COURSE: INTRODUCTION TO BIOMEDICAL TECHNOLOGY**      **COURSE CODE: BMT 321**

**Instruction: Answer all questions in section A and just one question in section B**    **Time: 3 hours**    **Unit: 1**

**Date: 27/04/2016**

**Section A**

- 1a) Discuss extensively on Healthcare Technology? (10 marks)
- b) What is Synergism in Healthcare Technology, and differentiate it from cybernetics? (5 marks)
- c) State at least 5 recent problems and prospects of both Biomedical Engineering and Healthcare Technology in Nigeria? (5 marks)
- (Total 20 marks)
- 2a) Itemize the roles of a clinical engineer in Hospital setting? (10 marks)
- b) Discuss briefly two hospital areas of biomedical engineering application? (10 marks)
- (Total 20 marks)

**Section B**

- 3a). Write short notes on three of the following:-
- i. Bioinstrumentation (4 marks)
  - ii. Bioinformatics (4 marks)
  - iii. Telemedicine (4 marks)
  - iv. Medical Imaging (4 marks)
  - v. Rehabilitation Engineering (4 marks)
- b). With the aid of a set diagram, explain the application of Biomedical Engineering? (10 marks)
- (Total 30 marks)
- 4a) What do you understand by man as a living machine? (15 marks)
- b) Discuss briefly on human system instrumentation? (15 marks)
- (Total 30 marks)