

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
SCHOOL OF HEALTH TECHNOLOGY
DEPARTMENT OF BIOMEDICAL TECHNOLOGY
2016/2017 HARMATTAN SEMESTER EXAMINATION

COURSE TITLE: ENVIRONMENTAL HAZARDS AND ENVIRONMENTAL SAFETY

COURSE CODE: BMT 423

Time: 2hours 30mins

Unit: 3

Instruction: Answer all questions

Date:14/ 06/ 2017

- 1a. Comment on attitude as hallmark of safety
b. State the various safety challenges in a laboratory
c. What are the factors that constitute mechanical safety and hazards?
d. Mention types of warning signs (20marks)
- 2a. A radiographer is performing a barium examination under fluoroscopy and the equipment is 'ON' for 3 minutes for each examination. The radiation level at the location of the radiographer is 100mR/hrs. How many such procedures will the radiographer carry out per week? (Please show all workings)
b. Comment on how distance and shielding affect the control of radiological hazard (20marks)
- 3a. What is an environmental hazard? (4marks)
b. With examples, classify environmental hazards (8marks)
c. With examples, classify the elements of pollution based on
i). Origins ii). Sources (6marks)
d. Define hazard symbol. Give an example. (2marks)
- 4a. Give two forms of pollution with examples (4marks)
b. Describe air pollution with global warming (4marks)
c. Outline the 4 consequences of water pollution (4marks)
d. How can Biomedical Engineers/Technologists contribute in controlling pollution? (8marks)