

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI

DEPARTMENT OF PUBLIC HEALTH

POSTGRADUATE EXAMINATION

Course: Environmental Health Laboratory Techniques (PUH 826)

Instruction: Answer four questions in all question one compulsory

Date: 29/11/2019

- 1a. What is Sample documentation? 2mks
- b. Give two (2) reasons for sample documentation. 2mks
- c. How would you register a sample of water for bacteriological analysis? 4mks
- d. Develop a request form to be used in Environmental Public Health Laboratory. 4mks
- e. Define Equipment calibration. 2mks
- f. Give 2 reasons why you must calibrate a named equipment. 2mks
- g. State the procedure for the calibration of a newly purchased spectrophotometer. 4mks
- h. State 5 objectives of EPHL 5mks
- i. What sample would you require for confirmation of cases in Lassa Fever outbreak and why? 5mks
- 2a. Explain the term 'Autoclaving'. 4mks
- b. What is the principle of Autoclaving? 4mks
- c. In sequence, enumerate the SOPs in sterilising a culture media. 10mks
- d. What is safety time? Why is this important in Autoclaving? 5mks
3. Explain the uses of the following equipment in EPHL
 - i. Spirometer 4mks
 - ii. CO, SO₂, NO₂ Gas meters 6mks
 - iii. GPS 4mks
 - iv. Food Probe 4mks
 - v. Laminar Flow Hood 5mks
- 4a. State the principles of spectrophotometer. 6mks
- b. Enumerate 5 parts of a spectrophotometer and state their importance. 10mks
- c. State the procedure you would adopt in measuring the pH of water. 7mks
5. Discuss the procedures you would adopt in collecting water from chemical analysis from well and tap water. 10mks
- b. Enumerate 5 heavy metals that can be found in polluted water. What are their significance? 8mks
- c. Write a short note on microscopy. 4mks