



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: EHS301

COURSE TITLE: BASIC INSTRUMENTATION AND USE

COURSE UNITS: 2 CREDIT UNITS

TIME ALLOWED: 1 ½ HOURS

TOTAL SCORE: 70 MARKS

INSTRUCTION: ANSWER ALL QUESTIONS

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|----|---|---|
| 1. | (a) List four (4) sequence of events in:
i. a scanning spectrophotometer
ii. an array spectrophotometer
(b) Describe the principle of operation of a pH meter?
(c) Write briefly on types of pH meters | 8 marks

7 marks
10 marks |
| 2 | (a) List any five (5) parts of the microscopes and their functions
(b) Discuss the uses of centrifuge?
(c) Write briefly on the precautions in using the following laboratory equipment
i. Heating devices
ii. Ovens
iii. Hot plates
iv. Microwave ovens | 10 marks
3 marks
3 marks
3 marks
3 marks |
| 3 | (a) Explain the term weather balloon?
(b) Highlight three (3) characteristics of weather ballon?
(c) Write short notes on validation analytical methods and precautions of the following items:
i. Instrument
ii. Glassware
iii. Freedom from contamination
iv. Standards | 5 marks
3 marks
3 marks
3 marks
3 marks |