



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE
2025_1 EXAMINATION

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

1	(a) Give at least three (3) examples each belonging to the following environmental hazards	
	i. Chemical hazards	3 marks
	ii. Physical/ mechanical hazards	3 marks
	iii. Biological hazards	3 marks
	(b) i. What is Spectrophotometry?	3 marks
	ii. State the first three (3) sequence of events in a scanning spectrophotometer	3 marks
	(c) Differentiate between single beam and double beam	5 marks
2	(a) Highlight the advantages and disadvantages of hot air oven	7 marks
	(b) Briefly explain sol gel as one techniques of air sensing	6 marks
	(c) Write short notes on validation analytical methods and precautions of following items	
	i. Reagents	3 marks
	ii. Sample blanks	3 marks
	iii. Calibration standards	3 marks
	iv. Weighing	3 marks
3	(a) Explain the term barometer	5 marks
	(b) Describe the following types of barometers	
	i. Water-based barometers	5 marks
	ii. Mercury barometers	5 marks
	iii. Vacuum pump oil barometer	5 marks
	iv. Aneroid barometer	5 marks