



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MARCH/APRIL 2015 EXAMINATION**

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: ESM 431:
COURSE TITLE: Environmental Health and Safety
Time: 2 Hours

INSTRUCTION: Answer any four Questions

Question 1A

- i. Effective environmental control requires standards. Explain (3 marks)
- ii. A national policy on the environment was promulgated in 1998, list the 5 goals of the policy. (5 marks)

Question 1B

- i. Define Environmental Management System. (1½ mark)
- ii. Enumerate the four main elements of Environmental Management Systems. (8marks)

Question 2A

- i. Define the term Environmental Impact Assessment. (1 marks)
- ii. Explain 3 processes involved in Environmental Impact Assessment. (6 marks)

Question 2B

- i. List 5 challenges to Environmental Impact Assessment in Nigeria. (2½ marks)
- ii. In a tabular form explain 8 relationships between Environmental impact assessment and Strategic environmental assessment. (8 marks)

Question 3A

- i. List the 3 main stages of Cost Benefit Analysis. (3 marks)
- ii. Draw the Cost Benefit Analysis Framework. (6 marks)

Question 3B

- i. Discuss the three groups of valuation techniques used in assessing Costs and Benefits. (6 marks)
- ii. List 5 benefits of Environmental Audits. (2½ marks)

Question 4A

- i. According to the Society for Environmental Toxicology and Chemistry (SETAC), Define the Life Cycle Assessment (LCA). (1½ marks)
- ii. In a tabular form compare the Environmental Impact Assessment (EIA) and Strategic Environmental Aspect (SEA) processes. (6 marks)

Question 4B

- i. Define the following terms: Cleaner technology, and Cleaner production. (2 marks)
- ii. List 4 Internal uses respectively of Life Cycle Assessment. (4 marks)
- iii. List the 4 uses of Clean Technology in Environmental Management System. (4 marks)

Question 5A

- i. Define the following terms: Risk Management, Risk Assessment, Risk Perception. (3 marks)
- ii. List the four stages in Risk Management. (4 marks)
- iii. State four benefits of Risk Assessment. (2 marks)

Question 5B

- i. What is Sustainable Development as defined by the UK Department of the Environment, Transport and Regions (1998)? (1½ mark)
- ii. The agreement which supports Sustainable Development covers several areas, in a tabular form; list these agreements, the sectors and drafting agency. (7 marks)

Question 6A

- i. Define the following terms: Occupational Health and Safety, Occupational Health and Safety Management System, Occupational Health and Safety Policy. (3 marks)
- ii. In brief, explain each of the following: (i) Environmental law/legislation (ii) Environmental regulation. (6 marks)

Question 6B

- i. Highlight 7 strategies of Occupational Health and Safety policy. (3½ marks)
- ii. Explain the connection between the concept of sustainable development and the following: **Waste and inequality. (5 marks)**