



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL SCIENCE**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**

**COURSE CODE: ESM 311**

**COURSE TITLE: AIR AND NOISE POLLUTION<sup>234</sup>**

**CREDIT: 2 Units**

**TIME ALLOWED: 2 Hours**

**Instruction:** Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

- 1a. State five (5) strategies for mitigating roadway noise.
  - b. Explain the technological approach adopted in reducing aircraft noise.
  - c. State four (4) necessary steps employed to reduce exposure to noise pollution.
  - d. Explain conflict management arising from noise pollution.
- 
- 2a. Using adequate examples describe the measurement procedure of noise.
  - 2b. State six (6) negative implications of noise on human health.
  - 2c. Enumerate six (6) effects of noise on environment.
- 
- 3.a Give two (2) examples each of the following setting of noise exposure:
    - i. Formal occupational sector.
    - ii. Informal occupational sector.
    - iii. Non-occupational sector.
  - 3b. Advance reasons while hazard awareness is low in Developing Countries
- 
- 4a. Mention two (2) criteria for determining noise-induced hearing loss (NIHL).
  - 4b Itemize noise exposure activities that contribute to noise induced hearing loss (NIHL)
  - 4c Highlight five (5) strategies for the prevention of noise induced hearing loss (NIHL)
- 
- 5a.State three causal factors of noise-induced hearing loss (NIHL) in Sub- Saharan African Countries.
  - 5b State three (3) sources of non-occupational noise in Nigeria.
  - 5c. State the primary motive for industrial noise control.