



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL SCIENCE**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**2021\_2 EXAMINATION**<sup>1567</sup>

**COURSE CODE: ESM 311**

**COURSE TITLE: AIR AND NOISE POLLUTION**

**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.

- QUESTION 1 a.. Mention one (1) legal instrument in managing the problem of noise pollution.  
b. Discuss the variability of the instrument among municipalities.  
c. State the difference between sound and noise.  
d. Using the table provided below, complete the typical noise level in the environment.

Typical Noise Levels in the Environment

Activity	Sound level
Pain	
Aircraft taking off	
Loud Rock Music	
Semi Truck (short term hazard)	
Jack Hammer	
Traffic (occupational limit)	
Conversation	
Background office noise	
Quiet bedroom	
Threshold of hearing	

- QUESTION 2 a. Explain the term “sound”  
b. Define noise.  
c. Enumerate five (5) effects of noise on environment.

- QUESTION 3 a. Using noise exposure history, define noise-induced hearing loss (NIHL).  
b. State the focal point of noise-induced hearing loss (NIHL) meeting.  
c. Itemize two (2) purpose of (NIHL) meeting.

- QUESTION 4 a. Give two definitions of “noise pollution”.

- b. State eight (8) types of noise.
- c. Explain any one type of noise

- QUESTION 5
- a. Mention six (6) methods of mitigating road traffic noise.
  - b. Enumerate the steps involve in learning to be protected from noise pollution.
  - c. State three (3) example each of primary and secondary Pollutants