



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**APRIL, 2019\_1 EXAMINATIONS**

**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.

1a) Extensively discuss trend of air pollution that led to the establishment of the environmental act of 1995 **(12marks)**

1b) Define the following **(5marks)**

(i) Air pollutant **(2marks)**

(ii) Air pollution **(3marks)**

1c) Identify sources of air pollution. **(8marks)**

2a) What is noise induced hearing loss? **(2marks)**

2b) what are the effects of noise pollution on the environment? **(4marks)**

2c) List the classes of pollutant **(3marks)**

2d) Attempt a classification of air pollutants according to their chemical composition **(6marks)**

3a) How is sound measured? **(1mark)**

3b) Discuss the effects of noise on Human health **(5marks)**

3c) Identify the dBA level and associated sound description **(9marks)**

dB	Sound description
0	
25	
35	
55	
70	
85	
100	
120	
140	

4a) What is noise? **(2marks)**

4b) Discuss various sources of natural and man-made pollutants. **(9marks)**

4c) Identify the effects of air pollution on the atmosphere. **(4marks)**

5a) Identify specific effects of the following pollutants

**(11marks)**

SO<sub>2</sub> (3marks)

NO<sub>x</sub> (4marks)

CO effect (1mark)

Particulate matters (aerosols) (3marks)

(5b) Outline the functions of FEPA as spelt out by FEPA decree.

**(4marks)**