



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL SCIENCE**  
**2023\_1 POP EXAMINATION**

**COURSE CODE: ESM311**

**TIME: ALLOWED: 2HRS**

**COURSE TITLE: NOISE AND AIR POLLUTION**

**CREDIT UNIT: 2**

**Instructions:** Attempt question Number one (1) and any other two. Question number 1 is compulsory and carries 30 marks, while the other questions carry equal marks of (20mks) each. Present all your points in coherent and orderly manner

**1.** With relevant examples, discuss the states of atmospheric pollution in each of the six Geo-Political Zones in Nigeria **(30 marks)**

**2a.** In ONE paragraph differentiate between air pollution and air pollutants **(5 marks)**

**2b.** Discuss the varied classes of pollutants in the atmosphere **(15 marks)**

**3.** Give an explanatory note on any four of the following:

a. Ozone, O<sub>3</sub> **(5marks)**

b. Carbon Monoxide, CO **(5marks)**

c. Chlorofluorocarbons, CFCs: **(5marks)**

d. Nitrogen Oxides, NO<sub>x</sub>: **(5 marks)**

e. Hydrocarbons and Volatile Organic Carbons (VOCs) **(5 marks). Total (20marks)**

**4.** Discuss in detail any TWO of the activities and mandates of the coordinating bodies of the Nigerian Environment **(20marks)**

**5a.** What is noise pollution **(5marks)**

**5b.** With relevant examples discuss the varies types of noise pollution known to you **(15marks).**