

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
SCHOOL OF ENVIRONMENTAL SCIENCES
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Harmattan Semester Examination 2018/2019 Session

EVT 519: Greenhouse Effect and Climate Change (2Units)

Instructions: Answer Four (4) Questions only. One Question Must Be Attempted from Each Section
Time: 2 Hrs

SECTION A

- 1a. Briefly discuss the following terms.
(i) Climate Change (ii) Electromagnetic radiation (iii) Atmosphere (iv) Solar System
- b. Distinguish between global warming and greenhouse effect.
- 2a. What do you understand by the term "Greenhouse Effect"?
- b. Discuss any five problems resulting from climate change.

SECTION B

- 3a. Mention one natural and one anthropogenic source of each of the following gases in the atmosphere:
(i) SF₆ (ii) N₂O (iii) PFC₅ (iv) H₂O (v) CH₄ (vi) CO₂ (vii) HFC₅
- b. Outline five harmful effects of the presence of greenhouse gases in the atmosphere.
- c. Outline four major effects of global warming.
- 4a. What are the Two reasons for the unexpected growth of CO₂ levels in the atmosphere over the years?
- bi. What do you understand by the global warming potential (GWP) of a greenhouse gas?
- ii. What three factors determine the capacity of a gas to cause global warming?
- ci. Mention Two types of classifications used in air emission accounting. What is the difference between them?
- ii. Distinguish between territorial and residence principles in air emission accounting.

SECTION C

- 5a. Present a simple Global Temperature Model.
- b. Explain how greenhouse effect cause global warming and climate change.
- c. Highlight two advantages of greenhouse effect.
6. Present any four theories to support the causes of global warming and climate change.