

COURSE CODE: ESM 343

COURSE TITLE: Climate Change and Environment.

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 seven consequences of acid deposition on human well-being (7marks)
- 1b) Discuss climax community (6 marks)
- 1c) List five effects of a decrease in the concentration of ozone in the ozone layer. (5 marks)
- 1d) Identify three sources of methane. (3marks).
- 1e) Explain how the aquatic system is influenced by acid deposition. (4marks)
- 2a) Describe the first layer of the atmosphere. (6 marks)
- 2b) Discuss water pollution from the angle of nonpoint sources (4marks)
- 2c) Justify the role of ozone layer in insulating the earth. (4marks)
- 2d) Why does water move in the direction of wind? (1mark)
- 3a) Differentiate between allogenic and autogenic succession (2 marks)
- 3b) Explain how fertilizer application contributes to an increase in the amount of a particular greenhouse gas. (4 marks)
- 3c) Explain *absorption* as an atmospheric process that modifies the solar radiation passing through the atmosphere destined for the earth's surface. (5 marks)
- 3d) Explain how the atmosphere is heated by convection. (4marks)
- 4a) Describe horizontal distribution of temperature. (5 marks)
- 4b) Differentiate between net primary production and secondary production. (4 marks)
- 4c) State three functional roles of water vapor. (3marks)
- 4d) Explain proxy data with respect to glacial ice deposits. (3marks)
- 5a) Explain how methane concentration is being increased by rice farming (4 marks)
- 5b) Discuss how habitat destruction and species extinction threaten the environment. (5 marks)
- 5c) Describe the last atmospheric layer. (6marks)