



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF EDUCATION
2017_2, SECOND SEMESTER EXAMINATION

COURSE CODE: SED328

COURSE TITLE: ENERGY AND MATTER II

CREDIT UNITS: 2

Instructions: Answer question 1 and any other two questions.

Time Allowed: 2 Hrs

- 1a. Give a concise definition of the term nuclear energy? (5 Marks)
How would you produce this form of energy? (5 Marks)
- b. Illustrate the followings, using stoichiometric equations
- i. Nuclear fission (5 Marks)
 - ii. Nuclear fusion. (5 Marks)
- c. List five advantages and five disadvantages of nuclear energy. (10 Marks)
- 2a. How would you dichotomise between Primary and Secondary pollutants? (10 Marks)
- b. Write brief notes on:
- (i) Green house effect (5 Marks)
 - (ii) Global warming. (5 Marks)
- 3a. (i) Define thermal energy? (5 Marks)
(ii) Describe five ways thermal energy can be generated. (5 Marks)
- b. (i) What is entropy? Give an equation to illustrate this process. (5 Marks)
(ii) How can entropy be applied in a chemical process? (5 Marks)
- 4a. Describe the formation of acid rains. Back up your response with appropriate chemical equations. (10 marks)
- b. What is Ozone? Discuss four health effects of ground level ozone. (10 Marks)
5. a. Define the term 'light' and give a brief but clear description of what it is. (10 Marks)
- b. List six sources of light. (6 Marks)
- c. Give four uses of light. (4 Marks)