Revision Exercise on Fuels and Energy

Form Two and Other Levels

RSE008

Instructions:

- Answer all questions in the spaces provided.
- Estimated time 100minutes.

SECTION A: Multiple Choice Questions

1.(i) Why is the fractional distillation of coal done? A. To remove oxygen in the atmosphere. B. To remove volatile matter. C. To add oxygen in the furnace. D. To add volatile matter. (NECTA 2018).

SECTION B: Open Ended Questions

2. (a) State four factors that determine the choice of good fuel.
(b) What are four negative impacts of fossil fuels on the environment?
(c) Briefly describe the process of producing biogas from domestic waste.

3. You visited a village facing a shortage of cooking fuel but with abundant raw materials for
biogas production. How would you advise the villagers on the following: (a) The nature of biogas.
(b) Suitable raw materials for biogas production.
(c) The process of producing biogas.
(d) Three advantages of biogas over charcoal. (NECTA, 2023)
4.(a) Describe the energy transformations that take place in each of the following:
(i) Energy from the sun is used to generate electricity for lighting a house.

(ii) Mechanical energy from the water falls is used to generate electricity.
(iii) A bicycle wheel is used to turn a dynamo.
(iv) The energy from the dynamo is used to power a bulb to produce light.
(b) (i) Explain the meaning of pyrometric effect.
(ii) Arrange the following fuels in order of increasing pyrometric effect: charcoal, methane, fire wood, and saw dust. (MOCK BABATI, 2020)
5. (a) What is destructive distillation
(b) Mention five (5) procedures of preparing charcoal from the method mentioned in 5(a) above.
6. (a) (i) What is a fuel?
(ii) State the principle of conservation of energy

(b) Mention any four energy sources used in most of Tanzanian society
(c) Giving two examples, differentiate renewable energy source from non-renewable energy sources
7. (a) Why fossil fuels are referred to as non-renewable energy sources? Give two reasons.
(b) Give four advantages of gaseous fuels over solid fuels.
©The experiment was done to measure the heat value of biodiesel. In this experiment 12litre of water was heated using 56g of biodiesel. The temperature of water rose from 24.7° C to 68.5° C. Determine heat value of the biodiesel. (Specific heat value of water = 4.18 KJKg ⁻¹ K ⁻¹ , density of water = 1000 kg/m ³)

••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••

Best regards,

The Diaprof Team

Please visit our website *diaprofcamp.com* for:

- O-level Chemistry notes (Google Search >diaprofcamp.com>Topics)
- Suggested answers (Google Search>diaprofcamp.com>DiaQSA)
- Past papers (Google Search >diaprofcamp.com>Past Papers)
- Top revisions (Google Search >diaprofcamp.com>Top Revisions)

For suggestions or to report errors, please email us at cfoumi@diaprofcamp.com or fill out the contact form on our website: diaprofcamp.com or fill out the contact form