

Answer four questions in all, choosing at least one and not more than two questions from each section.

SECTION A

AUTOMOTIVE TECHNOLOGY

1. a) Mention the **two** types of automobile engines. [4 marks]
- b) State the energy transformation that takes place in an automotive engine. [4 marks]
- c) Outline any **three** types of engines based on their cylinder blocked designs. [3 marks]
- d) The earliest types of engines, which powered steam locomotives are no longer in use. Explain why these engines are no longer in use. [4 marks]
2. a) The types of engines used by today's automobile vehicles can be classified into 2. Name them. [4 marks]
- b) Name **two** vehicles each that uses the engines mentioned in (1.a) above [4 marks]
- c) Mention any **four** component parts of an engine. [4 marks]
- d) Explain the main purpose of the automobile engine [3 marks]

SECTION B

BUILDING CONSTRUCTION TECHNOLOGY

3. a) State **five** stake holders found in the constructional industry [5 marks]
- b) Describe **two** duties performed by each of the following professionals in the construction industry
 - i) Town planer
 - ii) Architect
 - iii) Quantity surveyor
 - iv) General foreman
 - v) Contractor
 [10 marks]
4. a) Define Mobilisation as used in the construction industry [3 marks]
- b) Discuss **five** major activities that are involved in the mobilization stage at the construction site [10 marks]
- c) State **one** use of the wooden float. [2 marks]

SECTION C

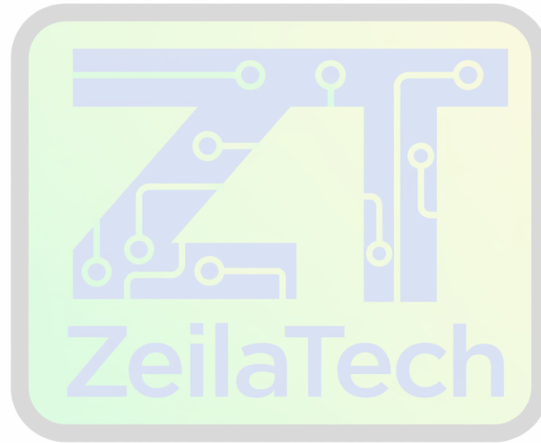
ELECTRICAL AND ELECGRONIC TECHNOLOGY

5. a) Mention any **four** methods of generating electrical power. [4 marks]
- b) Name the companies responsible for the following in Ghana:
 - i) Electrical Power Generation
 - ii) Electrical Power Transmission
 - iii) Electrical Power Distribution in the Northern Sector
 [6 marks]
- c) Outline any five behaviours that are defined as illegal connections by the ECG. [5 marks]
6. a) Define the term "electrical circuit". [2 marks]
- b) Mention any **four** types of diodes used in the electronic industry. [4 marks]
- c) Draw the circuit symbol for a diode. [4 marks]
- d) A mobile phone operates on direct current. However, its battery was charged by plugging into 240V A.C source. Explain how the battery is charged in as such. [5 marks]

SECTION D
WOOD WORK TECHNOLOGY

7. a) Name the **three** processing phases of timber in woodwork industry. [3 marks]
b) Describe the meaning of the term conversion of timber. [7 marks]
c) With the aid of diagram describe the natural method of seasoning. [5 marks]
8. a) What is manufactured board? [4 marks]
b) List **five** manufactured boards. [5 marks]
c) List **three** advantages of manufactured boards over solid wood. [6 marks]

END OF ESSAY TEST



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