# 2009 HIGHER SCHOOL CERTIFICATE EXAMINATION Electrotechnology

### **Section III**

#### 30 marks

Attempt TWO questions from Questions 25–27 Allow about 1 hour for this section

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

In your answers you will be assessed on how well you:

- demonstrate relevant knowledge and understanding
- communicate ideas and information, using precise industry terminology and appropriate workplace examples
- organise information in a well-reasoned and cohesive response
- solve proposed issues or problems

### **Question 25** (15 marks)

A single-phase 230-volt motor needs to be isolated in order to carry out minor service work.

Describe the process of isolation, identifying each step and justifying where appropriate. In your answer, refer to the safe use of equipment.

### **Question 26** (15 marks)

You are required to drill and tap an M10 hole to a depth of 15 mm in a mild-steel bar which is 50 mm thick.

Describe the process of drilling and tapping, identifying each step and justifying where appropriate. In your answer, refer to the safe use of tools required.

## Question 27 (15 marks)

You are responding to a service call from an irate customer. One section of the customer's business premises has lost power and this is affecting production.

Describe and explain the processes you would use to resolve both the customer service issue and the loss of supply issue.

### End of paper

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