

Student Name: _____**Class:** _____**Student ID:** _____**Date:** _____

Assessment Details

Duration: 45 minutes	Total Marks: 100
Topics Covered:	<ul style="list-style-type: none">• Lighting Circuits• Fault Finding• Maintenance Procedures

Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Calculator use is permitted except where stated otherwise.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section A: Multiple Choice [20 marks]

Question 1

[2 marks]

What is the primary function of a fuse in a lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To filter out noise

D) To boost power

Question 2

[2 marks]

Which of the following is a common type of lighting circuit?

A) Series circuit

B) Parallel circuit

C) Combination circuit

D) All of the above

Question 3

[2 marks]

What is the purpose of a switch in a lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To control the flow of current

D) To filter out noise

Question 4

[2 marks]

What is the function of a ballast in a fluorescent lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To control the flow of current

D) To provide the necessary voltage to start the lamp

Question 5

[2 marks]

What is the purpose of a fuse box in a lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To control the flow of current

D) To distribute power to different parts of the circuit

Question 6

[8 marks]

Describe the symptoms of a faulty ballast in a fluorescent lighting circuit.

Question 7

[8 marks]

Explain the importance of regular cleaning of lighting fixtures in a commercial building.

Question 8

[8 marks]

What are the steps to take when identifying a fault in a lighting circuit?

Question 9

[8 marks]

Describe the procedure for replacing a fuse in a lighting circuit.


What are the benefits of using energy-efficient lighting in a commercial building?

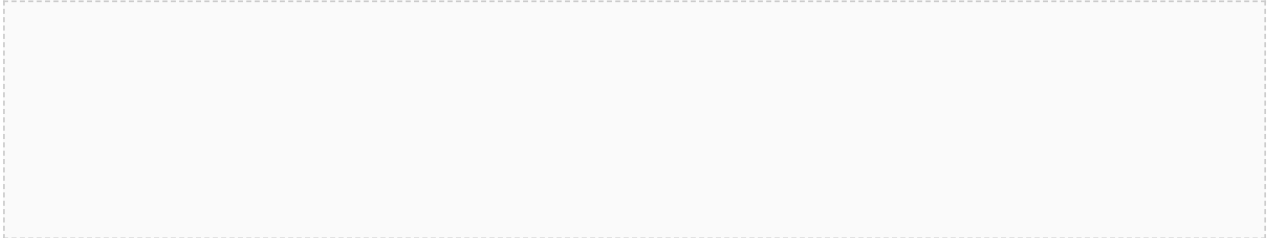


Question 11

[20 marks]

Label the components in the diagram below.

 Lighting Circuit Diagram



Question 12

[10 marks]

What is the purpose of a circuit breaker in a lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To control the flow of current

D) To automatically switch off the power in case of a fault

Question 13

[10 marks]

What is the function of a resistor in a lighting circuit?

A) To regulate voltage

B) To protect against overcurrent

C) To control the flow of current

D) To reduce the voltage in the circuit