



(Part A)

Instructions to candidates

Duration: One(01) hour

Number of questions: Three(03) Essay Questions

Mark allocation: 100 mark

Answer all questions

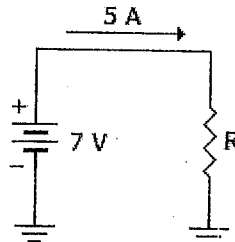


1.

- a. Using Ohm's Law, explain why personal protective equipment such as insulating gloves and boots help reduce the risk of electric shock. (10 mark)

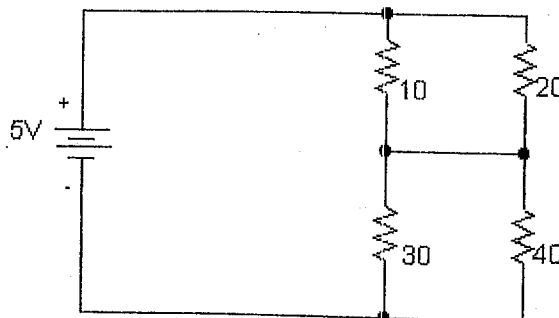
- b. An electric heater draws 3.5 A from a 230 V source. Find the resistance of the heating element. (05 mark)

- c. Calculate the power in the circuit given below.



(05 mark)

- d. Calculate
 - i. Equivalent resistance
 - ii. Current in the circuit



(10 mark)



2.

- a. What is renewable energy?
(05 mark)
- b. Briefly explain the importance of renewable energy and give three examples.
(15 mark)
- c. Is establishment of a nuclear power plant suitable to Sri Lanka? Give reasons.
(15 mark)

3.

- a. What is "sustainable development"?
(05 mark)
- b. Discuss how cleaner production can prevent environmental pollution.
(15 mark)
- c. What are the key phases in Cleaner Production?
(10 mark)
- d. List five Benefits of Applying Cleaner Production.
(05 mark)