**Subject:** Electrical and Fire Safety at Work

**Maximum Time Allowed:** 3 hours

**Instructions**: Do not write on any part of the exam paper. All rough work should be done in your answer booklet. All questions carry equal marks. You are required to answer only FOUR questions.

Question 1

Fire detection and alarm systems are of critical importance in safe guarding life and property. Elaborate. [25]

Question 2

a. Discuss the use of the following extinguishing media: - Powder extinguishers [5]; - Carbon dioxide extinguishers [5]; - Water extinguishers [5]

b. What secondary hazards are associated with the use of electricity at work? Explain. [10]

Question 3

Short circuits are a major cause of fire in electrical installations. What is a short circuit? How does it occur? What are the causes? How do short circuits lead to fire? How can they be prevented? Discuss. [25]

Question 4

What are some of the considerations that must be made with respect to people with disabilities and special needs when planning for electrical and fire related emergencies. Discuss any five (5) of such considerations. [25]

Question 5

Discuss in detail the recommended procedure for treating an unconscious person who has received a low-voltage electric shock. [25]

Question 6

a. Discuss three (3) actions that must be taken with respect to the storage of dangerous substances in the workplace. [15]

b. Give an account on “risk assessment of dangerous substances”. [10]