**Subject:** Physical, Chemical and Biological Hazards in the Workplace

**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

a. What is asbestos? What health risks are associated with asbestos? [10]

b. Describe three (3) types of surveys that can be used to identify the presence of asbestos. [15]

Question 2

Discuss in detail five (5) principal requirements of COSHH (Control of Substances Hazardous to Health) Regulations. [25]

Question 3

a. Discuss five (5) ways by which the noise levels received by employees can be reduced. [15]

b. What is ionizing radiation? Examine the harmful effects of ionizing radiation. [10]

Question 4

Describe the following agents, their associated health risks and how those risks can be controlled: - Carbon monoxide [10]; - Lead [10]; - Isocyanates [5].

Question 5

a. What is a personal protective equipment (PPE)? [3]

b. Describe three (3) types of eye protection PPE. Examine their respective advantages and disadvantages. [12]

c. Differentiate between local exhaust ventilation and dilution ventilation. [10]

Question 6

What is whole body vibration (WBV)? What causes WBV? What actions should be taken to control risks from WBV? Discuss. [25]