**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. Hazardous substances may be classified as being: - Irritants; - Harmful; - Carcinogenic; - Toxic, and; - Corrosive. Describe each of these classifications. [10]

b. “Deciding what needs to be done to control the exposure to hazardous substances” is a step to COSHH (Control of Substances Hazardous to Health). Discuss in detail three (3) things a COSHH assessor should do or consider under this step. [15]

Question 2

a. What major health risk is associated with the use of hand-held vibrating machinery? Discuss. [10]

b. Discuss three (3) important measures that should be taken to reduce the health risk associated with the use of hand-held vibrating machinery. [15]

Question 3

a. Examine four (4) basic standards all personal protective equipment must meet. [10]

b. Discuss five (5) principal requirements of regulations relating to personal protective equipment. [15]

Question 4

a. Describe the following: - Viruses [2]; - Bacteria [2]; - Fungi [2]; - Respirable dust [2]; - Fumes [2]

b. What are workplace exposure limits? What are their purpose? [5]

c. Health effects of hazardous substances may be either acute or chronic. Explain. [10]

Question 5

a. Discuss three (3) chronic hearing effects resulting from occupational noise. [15]

b. What is a noise action level? Examine two (2) main action levels for continuous noises. [10]

Question 6

a. What is waste management? [5]

b. Discuss in detail the hierarchy for the management of waste streams as recommended by the Environment Agency (UK). [20]