**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. Describe three (3) protection strategies that can be used for ionizing radiation. [9]

b. What is non-ionizing radiation? What risks are associated with non-ionizing radiation? [6]

c. Discuss two (2) protection strategies for non-ionizing radiation. [10]

Question 2

What measures must be put in place to prevent or control risks in occupations where there is a risk of exposure to blood borne viruses? Discuss any five (5) of such measures in detail. [25]

Question 3

a. In gathering information about substances, the work and working practices, what are some of the actions a COSHH (Control of Substances Hazardous to Health) assessor should take? Examine any four (4). [10]

b. Discuss in detail three (3) benefits of adhering to COSHH (Control of Substances Hazardous to Health) Regulations. [15]

Question 4

Describe the following agents, their associated health risks and how those risks can be controlled: - Silica [10]; - Wood dust [10]; - Legionella [5]

Question 5

Give an account on five (5) principles of good practice for the control of exposure to substances hazardous to health. [25]

Question 6

a. What issues must be considered when emergency procedures (relating to hazardous substances) are being developed. Discuss any four (4) of such issues. [20]

b. How are: - Passive sampling [2.5] and; - The use of stain tube detectors [2.5] employed in the measurement of air quality.