



ZIMBABWE

**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY
DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL DIPLOMA

IN

ENVIRONMENTAL HEALTH

SUBJECT: Occupational Health and Safety PAPER NO: 605/15/S07

DURATION: 3 Hours

MARCH/APRIL 2021 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

Answer ANY FIVE (5) questions.

QUESTION 1

- (a) Differentiate occupational safety and health from industrial hygiene. (4 marks)
- (b) The lighting conditions of a workplace are evaluated according to the type of work. State and explain factors to be considered when evaluating the lighting conditions. (12 marks)
- (c) Describe the components of a ventilation system. (4 marks)

QUESTION 2

- (a) Discuss engineering controls that one would put in place in addressing thermal conditions. (10 marks)
- (b) Identify any six control methods used to reduce or eliminate noise apart from ear plugs and ear muffs. (10 marks)

QUESTION 3

- (a) Discuss tenosynovitis under the following headings:
 - (i) workers at risk (4 marks)
 - (ii) signs and symptoms (4 marks)
 - (iii) treatment and control (2 marks)
- (b) Outline the principles of accident investigation. (10 marks)

QUESTION 4

- (a) Explain the following terms as they are used in
 - (i) toxicology (2 marks)
 - (ii) biotransformation (2 marks)
 - (iii) toxicants (2 marks)
 - (iv) xenobiotic (2 marks)
 - (v) somatic cells (2 marks)
- (b) Discuss methods of handling risks at a workplace. (10 marks)

QUESTION 5

- (a) Mention any three duties of each of the following
- (i) Public health inspector. (3 marks)
 - (ii) Factory inspector (3 marks)
- (b) Explain the role of legislation in occupational health giving examples of occupational health related pieces of legislation. (14 marks)

QUESTION 6

Discuss the general effect of toxic substances on human body.
(20 marks)

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