



PROGRAM : NATIONAL DIPLOMA: ENVIRONMENTAL HEALTH

SUBJECT: OCCUPATIONAL HEALTH AND SAFETY III

CODE : OHS 32-1

PAPER: FINAL EXAMINATION (THEORY)

DATE : 20th NOVEMBER 2017

DURATION : 3 (THREE) HOURS

WEIGHT : 50: 50

TOTAL MARKS: 150

EXAMINER : MR MASEKAMENI MD/ DR SHIRINDE J

MODERATOR: MR KHOZA N 4075

NO. OF PAGES: 3 PAGES

INSTRUCTIONS TO STUDENTS:

1. Answers all the questions, answer all questions in the appropriate format and number accordingly.
 2. Read your questions carefully. You will be penalised if your answers are not properly structured.
 3. You can start with any question, but do not divide sub-questions of the same question.
 4. Please write neatly.
-

QUESTION 1

- 1.1. With practical examples differentiate between the following concepts:
- 1.1.1 Anticipation and recognition (6)
 - 1.1.2 Identification and evaluation (8)
 - 1.1.3 Risk and hazard (4)
 - 1.1.4 Acute and chronic effects (4)
- 1.2. In chemical setting, oxygen deficiency is a major occupational hazard associated with fatalities. Please, explain physiological response associated with oxygen deficiency, factors, which increase intake of contaminant and possible hazards associated. (12)
- 1.3. Occupational hazards are classified in terms of toxicity. Kindly, explain the concept of toxicity in occupational settings, link your explanation to various toxicological effects of harmful chemicals. (15)

/49/

QUESTION 2

- 2.1. **Explain the following terms:**
- a) LC₅₀ and LD₅₀ (4)
 - b) Active ingredient (2)
 - c) Selective toxicity (2)
- 2.2. The best guide to using pesticides safely and effectively is the pesticide label. What information would you include on the pesticide label? (16)

/24/

QUESTION 3

- 3.1. Describe the main duties of persons who might be exposed to hazardous biological agents in terms of the Regulation 5 of the Regulations for Hazardous Biological Agents? (7)
- 3.2. Discuss the matters/ issues that the employer should take into account when conducting an assessment, in term of Regulation 6 of the Regulations for Hazardous Biological Agents. (10)

- 3.3. You are required to conduct training and give information to workers who will be exposed to hazardous biological agents, in term of the Regulation 4 of the Regulations for Hazardous Biological Agents, what aspects will you cover in your training? (10)

/27/

QUESTION 4

- 4.1. Develop an Occupational Hygiene Program for TB hospital, please be specific on items or procedures you will implement at various stage of your program. (15)
- 4.2. The user of an agricultural remedy request you to train him and his staff regarding the Material Safety Data Sheet. Please explain the important of MSDS and clearly state compulsory information to be included on the data sheet. Before answering this question, agree or disagree with the statement: MSDS and chemical label are the same. (15)

/30/

QUESTION 5

- 5.1. Distinguish between terms Irritant Contact Dermatitis and Allergic Contact dermatitis. (4)
- 5.2. Explain the indirect or predisposing factors leading to the development of occupational dermatitis. (6)
- 5.3. Company ABC had a few incidents where staff members developed allergic reactions due to exposure to latex. Give recommendations for the prevention and control of latex allergy. (10)

/20/

TOTAL =150