



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2017/2018
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF
ENVIRONMENTAL HEALTH

HEH 811: PHILOSOPHY AND FOUNDATIONS OF OCCUPATIONAL HEALTH AND
SAFETY

DATE: Monday, 5th February 2018

TIME: 9.00a.m-12.00p.m

INSTRUCTIONS: SECTION A (ANSWER ALL QUESTIONS IN THIS SECTION)

1. Mr. Tumbo owns a metal fabrication workshop. He has just landed a lucrative contract for manufacture of parts for the Standard Gauge Railway construction. Due to increased workload, he has bought two second hand lathe machines and a hydraulic press. He has also tripled his workforce from 4 to 12 employees. One of the newly recruited worker's finger has been amputated due to a crash injury caused by the press machine.
 - a) Describe the immediate steps that Mr. Tumbo should undertake to handle the situation in regard to:-
 - (i) The accident (6 marks)
 - (ii) General health and safety issues in his workshop. (6 marks)
 - b)
 - (i) Briefly explain the four possible hazards that Mr. Tumbo will encounter in the life span of this contract. (12 marks)
 - (ii) State the mitigation measures that will be required for the hazards. (12 marks)
 - c) During a routine workplace inspection by an occupational safety and health officer, it was noted that Mr. Tumbo's workshop was not registered under the Occupational Safety and Health Act, 2007.
 - (i) Explain the process he has to follow to make sure that his workplace is registered. (8mks)
 - (ii) Apart from the registration certificate, what other OSHA, 2007 statutory documents does Mr. Tumbo have to keep in his workplace? (6 marks)

SECTION B (ANSWER ANY THREE QUESTIONS IN THIS SECTION)

2. State and describe any **five** occupational hazards that might be encountered by a gardener employed by a local authority parks department. Briefly describe one control measure for each hazard stated above. (30mks)
3. Monica has just been employed as a clinical officer at Agricultural farm that grows and exports flowers and vegetables. She will be in charge of health matters in the company. She has also been appointed as a member of the safety and health committee. The farm employs about 1,200 workers.
- a) Describe the process that Monica has to undertake to develop a comprehensive and effective safety and health management system. (10 marks)
 - b) Designate her role on first aid management in the workplace? (10 marks)
 - c) Briefly describe five common injuries that she may come across in the cause of her duties. (10 marks)
4. (a) 'There are only two immediate causes of accidents at work, **unsafe acts** and **unsafe conditions**'. Discuss. (10 marks)
- (b) An employee of a food processing company was injured by the dough mixer during the course of his work. Describe step by step, how such an accident may be investigated to a logical conclusion. (12 marks)
- (c) State the preventive measures that would have been put in place such that the accident would not have occurred. (8 marks)
5. Mr. Maina, a Civil Engineering contractor has been awarded a contract to overhaul a storage system of a petrol station along Mombasa Road. The work entails replacement of underground tanks in phases such that the station does not close shop completely in order to keep loyal customers.
- (a) Describe any five hazards that Mr. Maina will encounter in the course of his work. (15mks)
 - (b) Advice Mr. Maina on control measures he should put in place in order to reduce safety and health risks in the workplace. (15mks)

6. A hazard control program consists of all steps necessary to protect workers from exposure to a substance or system, and the procedures required to monitor worker exposure and their health to hazards. Giving examples, describe the hierarchy of control of occupational hazards that an occupier may use to put in place such a program.

(30mks)