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Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH
COURSE CODE : BFR 33002
PROGRAMME CODE : BFR
EXAMINATION DATE : JULY/AUGUST 2023
DURATION : 3 HOURS
INSTRUCTION : 1.ANSWER ALL QUESTIONS.
2.THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
3.STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

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- Q1** (a) In Occupational Safety and Health, there are some terms being used such as ALARP and HIRARC.
- (i) State what is ALARP stands for. (3 marks)
 - (ii) State what is HIRARC stands for. (3 marks)
- (b) Define the following terms;
- (i) Hazard
 - (ii) Risk
 - (iii) Danger (9 marks)
- (c) Explain **FIVE (5)** sources of hazard. (10 marks)
- Q2** (a) Every construction works involve risks. Explain briefly **TWO (2)** physical hazards, types of risky job and its effects on health. (4 marks)
- (b) Pesticide is any compound or mixture used to prevent, destroy or keep out pests. Describe **THREE (3)** preventive measures for each of its condition prior to before, during and after the use of pesticides. (9 marks)
- (c) In order to control the hazard, recommendations shall be provided according to the hierarchies of the control measures. Explain briefly in table, **SIX (6)** of the control measure hierarchies. (12 marks)
- Q3** **Figure Q3** shows the accident that happened to the sub-contractor and workers. To ensure work activities being carried out safely and healthily, potential hazards need to be identified, assessed and controlled.
- (i) Analyse the statements and photo given. (10 marks)

(ii) Propose HIRARC to ensure the hazard is as ALARP.

(15 marks)

Q4 (a) List **FOUR (4)** basic types of Incidents.

(2 marks)

(b) Describe 'near miss' with an example.

(5 marks)

(c) According to DOSH, Every incident happened should be followed by an investigation. Discuss the investigation that must be conducted.

(8 marks)

(d) Discuss the investigation strategies in sequence to perform task efficiently.

(10 marks)

-END OF QUESTIONS –

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Figure Q3

Sub-contractor, worker found dead in manhole

SHAH ALAM, Sun, - A subcontractor and his worker were found dead in a five-meters deep manhole along Persiaran Kemajuan in Section 16 here today.

Lim Chin Chuan, 51, from Taman Camp, Port Klang and his worker identified only as Masturi, 24, from Jawa Timur, were believed to have died in toxic inhalation.

Firemen who went to the scene after receiving a call at 10.56am found Lim's body on top of his assistant in the manhole. They also found a ladder jutting out of the manhole. Section 15 Fire and Rescue Department officer Borhan Madom said the two might have inhaled toxic gas on Friday while carrying out maintenance work.

The 13-member team pulled out Lim's body from the manhole about 1.25pm and Masturi's body was retrieved 20 minutes later.



SUSPECTED TOXIC GAS: Firemen pulling out one of the bodies.

The position of the bodies indicated that one of the two could have sought the help of the other after inhaling toxic gas in the manhole. A car believed to have been driven by the sub-contractor was parked nearby. The scene attracted a large crowd, causing a traffic jam in the industrial area. According to one of Lim's relatives, Lim normally left the house about 7am and returned home about 6pm. However, relatives were unable to trace Lim's whereabouts until this morning. They lodged a report at the Pandamaran police station about 10am. The bodies were sent to University Malaya Medical Centre for post-mortem.