



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2016/2017**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH

COURSE CODE : BNR 22502

PROGRAMME CODE : BND / BNE / BNF

EXAMINATION DATE : JUNE 2017

DURATION : 2 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF SIX (6) PAGES

- Q1** (a) Based on Occupational Safety and Health (Safety and Health Officer) Regulations 1997, describe **THREE (3)** duties of safety and health officer. (6 marks)
- (b) As a company in Malaysia, your company are obliged to have a health and safety policy. Design a Health and Safety (HSE) policy for an electrical company with the following details:
- (i) Title of company.
 - (ii) Business sector.
 - (iii) Responsibilities / Statement of policy for:
 - a. Management (at least **FIVE (5)** points).
 - b. Workers (at least **FIVE (5)** points).
 - (iv) Signature, name, designation of policy endorser and effective date of policy. (13 marks)
- (c) Personal Protective Equipment (PPE) safeguards workers from injury and ill health in hazardous situations. However, most company have no concern in providing the PPE to their workers, but the major concern is getting them to wear it. Suggest **THREE (3)** health and safety programs to encourage PPE compliance among workers. (6 marks)
- Q2** (a) In 1930, Heinrich, a safety and health expert, came out with Heinrich's Theory of Loss Causation. List out the **FIVE (5)** factors of Heinrich's accident sequence. (5 marks)
- (b) Based on Guidelines for Hazard Identification, Risk Assessment and Risk Control (HIRARC) 2008 published by Department of Occupational Safety and Health (DOSH) Malaysia, differentiate the **FIVE (5)** categories of the following risk assessment criteria. Also, state the ranking of each category.
- (i) Likelihood of an occurrence.
 - (ii) Severity of hazard. (10 marks)
- (c) **Figure Q2(c)** shows the scenario taken place at the kitchen of a local restaurant called Eat Corner Sdn. Bhd. Perform HIRARC analysis and identify **THREE (3)** hazards and complete the HIRARC form in **Appendix A**. Please submit **Appendix A** together with your answer script. (10 marks)

- Q3**
- (a) Management of a company can use lagging and leading indicators to evaluate the safety of their workplace. Give **TWO (2)** examples each for lagging and leading indicators. (4 marks)
- (b) There are three major arguments that validate why occupational safety and health need to be managed. Differentiate the **TWO (2)** arguments below: (6 marks)
- (i) Economic argument.
 - (ii) Humanitarian argument.
- (c) The existence of safety culture in the organization can contribute to profit by minimizing loss and adding the capital value of an organization. Without safety culture, likelihood of accident occurrence might increase. Describe **FIVE (5)** typical costs associated with accidents. (5 marks)
- (d) There were numerous major industrial accidents that have contributed significantly to the evolution of occupational safety and health. Analyze and discuss the implication and contributing factors of each tragedy as listed in **Table Q3(d)**. (6 marks)
- (e) Describe the **FOUR (4)** exposure monitoring and control methods for chemical hazard as listed below: (4 marks)
- (i) Personal monitoring.
 - (ii) Environmental monitoring.
 - (iii) Biological monitoring.
 - (iv) Medical monitoring.

- Q4** (a) Differentiate acute and chronic diseases. Also, give **ONE (1)** example scenario for each type of disease. (4 marks)
- (b) Describe **ONE (1)** purpose of incident investigation. (1 mark)
- (c) Based on Guidelines on Safety and Health (Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Disease) Regulations 2004 (NADOPOD), discuss the **FIVE (5)** steps in deciding whether a case should be notified and recorded. (5 marks)
- (d) Analyze the case study in **Figure Q4(d)**. Then, write an investigation report in JKKP 6 form provided in **Appendix B**. You are allowed to make assumptions. Please submit **Appendix B** together with your answer script. (15 marks)

- END OF QUESTIONS -

FINAL EXAMINATION

SEMESTER / SESSION : SEM II / 2016/2017

PROGRAMME CODE : BND/BNE/BNF

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH

COURSE CODE : BNR 22502

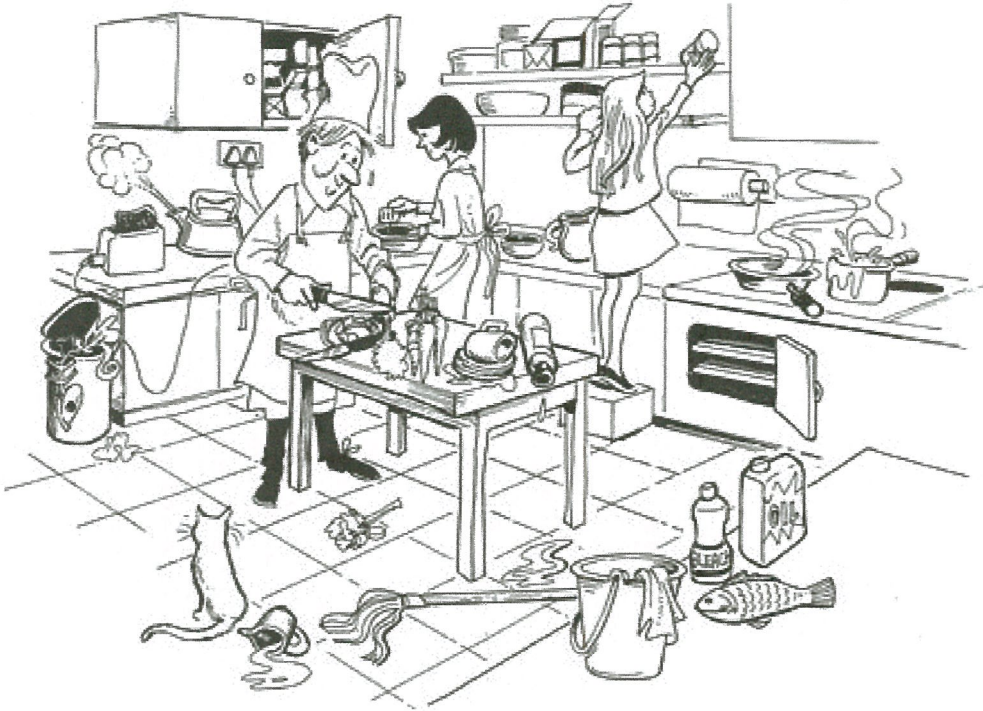


Figure Q2(c)

Table Q3(d)

No.	Tragedy	Implications	Contributing Factors
1	Hawks Nest Tragedy		
2	Piper Alpha Oil Rig Tragedy		
3	Bhopal Tragedy		

FINAL EXAMINATION

SEMESTER / SESSION : SEM II / 2016/2017

PROGRAMME CODE : BND/BNE/BNF

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH

COURSE CODE : BNR 22502

January 22, 2011:

SHAH ALAM, MALAYSIA – A man faces a bleak future when both his hands were amputated following a freak accident where he suffered electric shocks while plucking oil palm fruit at Berjaya Estate in Tanjung Karang, two months ago.

Doctors, who are treating Muhamad Hairuman bin Miskon, 22, have decided to amputate both his hands below the elbow to avoid infection from spreading to other parts of his body.

Hairuman's ordeal started on Nov 26, last year, when he was plucking oil palm fruit with a friend.

He was using a steel rod with a hook on one end to pluck the palm oil fruit, unaware that the leaves of the tree were wet from a downpour the night before and were touching a nearby high-voltage electric cable.

As soon as the rod touched the wet leaves, he suffered shocks and was thrown off about 5m.

Hairuman suffered more than 50 per cent burns to his body, with both his hands totally charred. The accident was reported by the estate manager, Abdullah bin Deraman.

Since the accident, the victim had been admitted to several hospitals in Tanjung Karang and Sungai Buloh before he was transferred to Tengku Ampuan Rahimah Hospital on Monday.

His elder sister, Maryuni binti Miskon, 32, said doctors told the family that both of his hands had to be amputated because they were completely burnt.

"I agree with the surgery if it will help to save his life. At the same time, I'm also wondering how Hairuman will make a living without his two hands," said Maryuni.

She added that Hairuman used to do wiring jobs before the incident.

She also said she had spent thousands of ringgit on Hairuman's medical expenses since the accident.

Members of the Committee of Community Services and Rakan Muda of the Malaysian Youth Council visited Hairuman yesterday.

Its chairman, Rizan Hassan, urged members of the public and non-governmental organisations to offer financial assistance to help ease the victim's financial burden.

Figure Q4(d)

APPENDIX A

NAME: _____ MATRIC NO. : _____

HIRARC FORM											
Company:		Conducted by: (Name, designation)									
Process / Location:		Date:(from... to...)									
Approved by:(Name, designation)		Review Date:		Review 1:		Review 2:					
Date:		Next Review Date:									
1. Hazard Identification			2. Risk Analysis				3. Risk Control				
No.	Work activity	Hazard	Which can cause / effect	Existing Risk Control (if any)	Likelihood	Severity	Risk	Recommended Control Measures	PIC	Due Date	Status
1											
2											
3											

86400, Pauh Raja, Batu Pahat, Johor
 Universiti Tun Hussein Onn Malaysia
 Fakulti Teknologi Kejuruteraan
 Pengerian
 DR. IMI SYAMIMI BINTI AS CHAFAR

APPENDIX B

TERBUKA

NAME: _____

MATRIC NO.: _____

**JKKP 6 - REPORT FOR OCCUPATIONAL ACCIDENT/ DANGEROUS OCCURRENCE
OCCUPATIONAL SAFETY AND HEALTH (NOTIFICATION OF ACCIDENT, DANGEROUS OCCURRENCE,
OCCUPATIONAL POISONING AND OCCUPATIONAL DISEASE) REGULATIONS 2004**

Part A - Detail of Notifier

Notifier - Regulation 5(1)&(2) Employer

Name

Designation

Name & Address of Organisation

R.O.C. No

JKKP Reg. No.

Contact person (If different from above)

Contact No.

Industrial Classification Code (Table 3)

Part B - Affected person

(If more than one person please use separate form)

Name

Date of Birth

NRIC/Passport No.

Nationality

Gender

Occupation

Name & Address of Organisation

Location of incident

Date and time of incident

Date of first informing DOSH

Part C - Description of accident or dangerous occurrence

Please describe what happened before, during and after the incident.

Signature of Notifier

Date

Disclaimer

Completing this form does not constitute to an admission of liability of any kind by the person making the report or by any other person(s).