UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018

COURSE NAME	:	OCCUPATIONAL SAFETY AND HEALTH
COURSE CODE	:	BNR 22502
PROGRAMME CODE	:	BND/BNE/BNF
EXAMINATION DATE	:	JUNE / JULY 2018
DURATION	:	2 HOURS 30 MINUTES
INSTRUCTION	:	ANSWERS **ALL** QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

Q1 (a) List **THREE (3)** Factory Machinery Act regulation which related in wood based industries.

(3 marks)

(b) Based on Occupational Safety and Health Act 1994 Part IV Section 15(2), describes **THREE (3)** general duties of employers and self-employed persons to their employees.

(7 marks)

(c) Develop safety and health policy for laboratory in Faculty of Engineering Technology, University Tun Hussein Onn Malaysia (UTHM).

(10 marks)

Q2 (a) Identify **FOUR (4)** steps of risk assessment.

(4 marks)

(b) **Figure Q2(b)** 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.

(9 marks)

(c) Define the Job Safety Analysis (JSA) and describe how JSA is used as one of the risk management techniques.

(7 marks)

Q3 (a) Define the physical injury.

(3 marks)

(b) Identify what aspects should be considered to prevent back injury resulting from manual material handling? How can we reduce stressful body movements in manual material handling?

(7 marks)

(c) There were numerous major industrial accidents that have contributed significant to the evolution of occupational safety and health. Lesson learnt from those incidents have initiated more stringent precautionary and preventive measures. Determine the implication and contributing factors of each tragedy as listed in **Table Q3 (a)**.

TERBUKA (10 marks)

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Q4 (a) Differentiate acute and chronic diseases. Give **ONE (1)** example scenario for each type of disease.

(3 marks)

(b) Identify **FOUR (4)** classification of occupational hazards and provide **ONE (1)** example for each group of occupational hazard.

(4 marks)

(c) Based on the statistic of Industrial Hygiene Inspection in Malaysia as shown **Table Q4(c),** compare and relate the OSHA with Industrial Hygiene?

(4 marks)

(d) There has an accident which involves fatality case in work place. One of your worker is doing welding process and suddenly the Argon tank was explode. Develop and discuss **THREE (3)** technique of investigation accident.

(9 marks)

Q5 (a) Determine the differences between hazard identification, risk assessment and risk control in table form

(5 marks)

(b) 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)

(c) Analyze in detail, the technique to reduce the occupational disease and occupational poisoning based on the DOSH reported data as tabulated in **Table Q5 (b)**.

(10 mark)

- END OF QUESTIONS -

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Figure Q2(b)

Table Q3 (a)

No	Tragedy	Implications	Contributing Factors
1	Bhopal Tragedy		
2	Bright Sparkles		
3	Highland Tower		
4	Chernobyl Disasters		
5	Piper Alpha Tragedy		

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Table Q4(c)

Year	IH Inspection
2005	328
2006	312
2007	444
2008	436
2009	469

Year	IH Inspection
2010	533
2011	596
2012	1533
2013	2621
2014	2545

Table Q5(b)

No.	Types of Disease	2005	2006	2007	2008	2009
1	Occupational Lung disease (OLD)	51	38	50	56	57
2	Occupational Skin Disease (OSD)	57	30	192	70	53
3	Occupational Noise Hearing Loss (NIHL)	190	106	120	169	427

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NAME: _____

APPENDIX A

MATRIC NO. : _____

HIRARC FORM

Company:
Process / Location:
Approved by: (Name, designation)
Date:

Conducted by:
(Name, designation)
Date: (from… to…)
Review Date:
Next Review Date:

Review 1:
Review 2:

No.	1. Hazard Identification			2. Risk Analysis				3. Risk Control			
	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											

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