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**UTHM**  
Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2021/2022**

COURSE NAME : OCCUPATIONAL SAFETY & HEALTH  
COURSE CODE : BPA 32202  
PROGRAMME CODE : BPD  
EXAMINATION DATE : JULY 2022  
DURATION : 2 HOURS

**INSTRUCTION**

1. ANSWER ALL QUESTIONS
2. THIS FINAL EXAMINATION IS AN **ONLINE ASSESSMENT AND 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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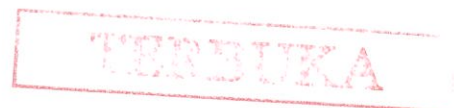
**TERBUKA**

- Q1** (a) Define the following terms:
- (i) Hazard (1 mark)
  - (ii) Acute effect (1 mark)
  - (iii) Chronic effect (1 mark)
- (b) Explain **SIX (6)** elements in the hierarchy of risk control. (12 marks)
- (c) (i) Identify with example **THREE (3)** hazard categories that might be encountered by food delivery riders while working. (6 marks)
- (ii) Suggest **TWO (2)** preventive measures to overcome the risk by hazards based on the answer in **Q1(c)(i)** that could be taken by the management/employer to reduce the risk. (8 marks)

**Q2** The risk of injuries can occur if employees expose to various types of hazards while working. By observing the **Figure Q2** :



**Figure Q2: Employees carry out their work tasks at workshop area**



- (a) Determine the potential hazard related to the activity. (1 mark)
- (b) State **TWO (2)** examples of health effects associated with the hazard based on the answer in **Q2(a)**. (2 marks)
- (c) Elaborate **FOUR (4)** methods of identifying the above occupational hazard. (12 marks)
- (d) Prepare **FOUR (4)** preventive measures to prevent the above occupational hazard based on the hierarchy of risk control. (12 marks)

**Q3** In a paint manufacturing plant, workers who work in the work unit ‘Primer Coating’ are exposed to chemical Y with a hazard rating of 4 and exposure rating of 1. Meanwhile, those who are assigned in the work unit ‘Secondary Coating’ are exposed to chemical Z with a hazard rating of 3 and an exposure rating of 5.

**Table Q3: Risk Matrix**

		EXPOSURE RATING (ER)				
		1	2	3	4	5
HAZARD RATING	1	RR=1	RR=2	RR=2	RR=2	RR=3
	2	RR=2	RR=2	RR=3	RR=3	RR=4
	3	RR=2	RR=3	RR=3	RR=4	RR=4
	4	RR=2	RR=3	RR=4	RR=4	RR=5
	5	RR=3	RR=4	RR=4	RR=5	RR=5

*RISK NOT SIGNIFICANT* (diagonal line from top-left to bottom-right)

*RISK SIGNIFICANT* (diagonal line from bottom-left to top-right)

*Category 1* (diagonal line from bottom-left to top-right)

*Category 2* (diagonal line from bottom-left to top-right)

- (a) State the formula to calculate the risk. (1 mark)
- (b) Calculate the risk rating for both chemicals Y and Z based on the **Table Q3**. (6 marks)





- (c) Propose **TWO (2)** possible control strategies for chemical hazards for each work unit as in the above scenario based on the hierarchy of control from the most effective to the least effective.

(12 marks)

**Q4** Workplace stress places significant psychological, physiological, and financial costs on both individual and organization.

- (a) List **FOUR (4)** sources of workplace stress.

(4 marks)

- (b) Explain **THREE (3)** methods that can be taken by an individual to reduce workplace stress.

(6 marks)

- (c) Outline **FIVE (5)** strategies that can be implemented by the managers to assist their employees in managing workplace stress.

(15 marks)

- END OF QUESTIONS -