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Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

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

COURSENAME : OCCUPATIONAL SAFETY & HEALTH

COURSECODE : BNJ21102

PROGRAMME CODE : BNG

EXAMINATION DATE : JULY 2022

DURATION : 2 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) On his first day of the job, Wong was instructed to operate a forklift to transport boxes in the warehouse. As a safety officer, convince your management that this is a wrong deed and recommend the action required for the employer based on the Occupational Safety and Health Act (OSHA) 1994
(8 marks)
- (b) Hooke Engineering Sdn. Bhd. has a total of 250 employees in six departments which are the Administrative, Business Development, Research and Engineering Development, Production, Quality Assurance, and Warehouse. The General Manager of Hooke Engineering Sdn. Bhd. is planning to establish a safety and health committee (SHC) for the company as an attempt to improve the safety, health and welfare of the employees. Construct the organization chart of the SHC in accordance with the Safety and Health Committee Regulations 1996.
(8 marks)
- (c) Mr. Tony Stark as a director of Stark Industries Sdn. Bhd. need a direction and assistance of management system in his company that can contribute to the protection of employees from hazards and its associated risks, the elimination of work-related injuries, disabilities, ill health, diseases, near misses and fatalities. Please suggest the appropriate management system if the company is based in Malaysia and show the implementation framework of the system.
(9 marks)
- Q2** (a) Hot Work Technology Sdn. Bhd. is a famous engineering company that frequently undertakes fabrication project on the development of machine, reactor, ships and etc. Most of their activities is a welding work. As a safety and health officer, you have been assigned to do HIRARC assessment on the welding activities in this company. Identify a major safety and health hazard in your HIRARC assessment and suggest the control measure based on the control hierarchy for those hazards. The existing control in the company was including PPE, LEV and safe work practice.
(15 marks)
- (b) In a risk assessment process, there has guideline under DOSH Malaysia called HIRARC. Discuss the HIRARC based on:
i. Hazard Identification
ii. Risk Assessment
iii. Risk Control
(10 marks)
- Q3** (a) Falls from heights are the most common cause of construction site injuries and death. According to the journal Health & Safety International, it is "the number one construction killer in any country." Construction sites are the most vulnerable to this safety concern. Other businesses and workplaces such as building service also have significant fall-at-height injuries due to slips and falls in the workplace.

- (i) Discuss in detail **THREE (3)** factors that contribute to the fall from height in construction. (6 marks)
- (ii) Identify **THREE (3)** counter-measures for your answer in Q3(a)(i) (6 marks)
- (b) Over the years, DOSH had been introduced legislation and regulations regarding dangerous substances, such as Factories and Machinery (Asbestos Process) Regulation 1986 and Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) 2000 Regulation.
- (i) Justify **ONE (1)** reason (with reference) why industries kept using asbestos in their work even though the adverse effect of asbestos continued distinguished (3 marks)
- (ii) Propose **FIVE (5)** key measures to minimize the health hazard to the industries regarding mineral dust usage at their work process. (10 marks)
- Q4** (a) On 11.11, Kuala Lumpur, Malaysia, ranks fourth among the top overseas countries importing from China in terms of gross merchandise value. According to Alibaba Group's data as of 9 a.m. today (Wednesday), Malaysia was just behind the United States, Russia, and France (source from nst.com.my). The warehouse section was overwhelmed with millions of items that need to be ship to the eager customer. To cater to the situation, most of the warehousing is stacking up materials high within their compartment. The usage of forklift is a must. **Figure Q4** shows a situation regarding material handling inside the warehouse.
- (i) Analyze the situation in **Figure Q4(a)** by using Heinrich's Domino Theory. (Remarks: use points in the **Figure Q4(a)** to guide your assessment) (12 marks)
- (b) A 15-year-old girl was employed at a fast-food outlet to prepare fries on a frying range. She slipped on water leaking from an ice-making machine and instinctively put out her hand to break her fall. Unfortunately, her hand fell into the deep fat fryer containing oil at a temperature of 360°F, and she suffered severe burns to her left hand and forearm. The outlet was short-staffed on the day of the accident, and the Team Leader was working on the tills instead of monitoring workplace safety.
- (i) State the regulation which require the outlet to report this accident to the authority. Formulate a report regarding this accident. The report must include **THREE (3)** causes of the accident (Multiple Causes of Accident Theory) and **THREE (3)** accident prevention activities. (13 marks)

-END OF QUESTIONS -

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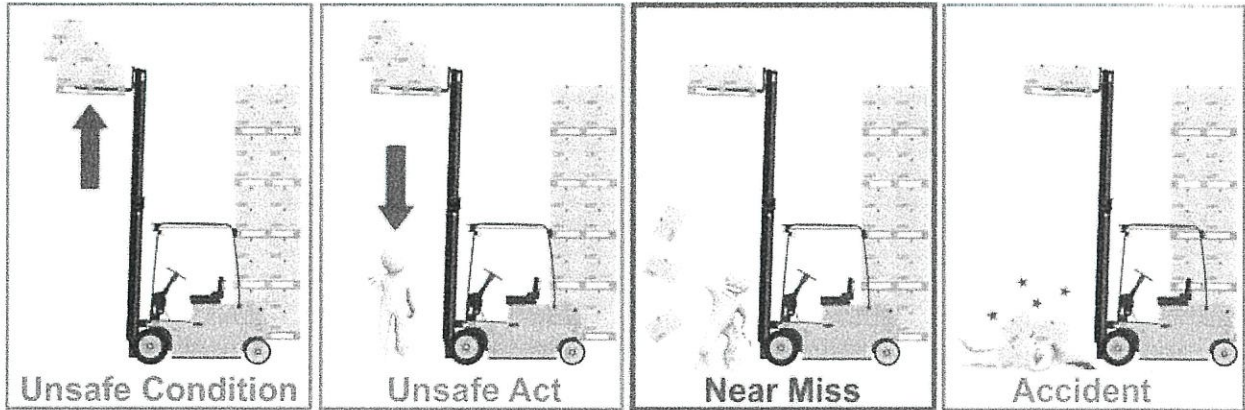


Figure Q4(a)

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