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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT
COURSE CODE : BPC 32503
PROGRAMME CODE : BPP
EXAMINATION DATE : JUNE / JULY 2019
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

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- Q1**
- (a) State **SIX (6)** basic elements of emergency response preparedness management. (6 marks)
 - (b) Describe **THREE (3)** levels of emergencies. (9 marks)
 - (c) Determine **FIVE (5)** importance of developing emergency response preparedness to enable the safety of employees during an emergency. (10 marks)

- Q2** An accident involving a machine operator was reported at a furniture manufacturing factory. The victim was an apprentice, who was being careless and had his fingers into the table saw. The result was a serious injury to the apprentice.
- (a) Explain **FIVE (5)** steps of accident investigation based on the above situation. (10 marks)
 - (b) Determine **FIVE (5)** approaches in which management could demonstrate their commitment to improve safety and health standards in the workplace following the accident. (15 marks)

- Q3** In a local paint manufacturing plant, a work unit A is exposed to chemical WX with hazard rating of 5 and exposure rating of 1. Another work unit B is exposed to chemical YZ with hazard rating of 3 and exposure rating of 5.

Table Q3: Risk control priority based on risk level (DOSH, 2008)

Risk	Description	Action
15-25	HIGH	A HIGH risk requires immediate action to control the hazard as detailed in the hierarchy of control. Actions taken must be documented on the risk assessment form including date of completion.
5-12	MEDIUM	A MEDIUM risk requires a planned approach to controlling the hazard and applies temporary measure if required. Actions taken must be documented on the risk assessment form including date for completion.
1-4	LOW	A risk identified as LOW may be considered as acceptable and further reduction may not be necessary. However, if the risk can be resolved quickly and efficiently, control measures should be implemented and recorded.

- (a) State formula to measure the risk level. (3 marks)
- (b) Calculate the risk level of both chemical exposures in work unit A and work unit B. (6 marks)
- (c) Suggest **TWO (2)** appropriate risk control measures that should be taken based on answer in **Q3(b)** for both work unit, by referring to the information given in **Table Q3**. (16 marks)

Q4 Janet was the newest member of the production unit for Precast Concrete Manufacturer (PCM) which produces interlocking bricks for rapid house construction. She and the other members of her unit were responsible for producing 10,000 bricks every morning for different projects. It was physically demanding work, and she was the first woman ever selected by PCM to work in the production unit. Since she is the only female worker in this unit so she is trying her best to show that female can also work in this physically demanding unit.

Before beginning work in the production unit, according to the safety orientation program, new workers must complete two days of training in proper lifting techniques, which includes manual lifting, crane, and forklift. The use of back-support belts is mandatory for all loading dock personnel. Consequently, Janet became concerned when the production manager called her aside on her first day in the unit and told her that the key success of this unit is productivity speed.

Janet was surprised to see the existing workers in this unit work without following safety procedures just to keep up the productivity target. The manager warned Janet that her productivity rate was much slower than the others. Feeling pressured, Janet copied the way they work, fast but unsafely. As a result, the group was happy and accepted Janet as part of their team.

However, after four months of working in this unit, she began to experience persistent lower-back pain. Janet felt sure that her hurried lifting techniques were to blame, but she valued the approval of her manager and other members in the production department. Finally, one day while transporting the bricks, Janet fell to the pavement in pain and could not get up. Her back throbbed with intense pain, and her legs were numb. The company doctor said that she had two ruptured spine discs.

- (a) Analyse **THREE (3)** causes of accidents for above scenario, with classification on the accident causation according to epidemiological factor theory. (13 marks)
- (b) Recommend **FOUR (4)** preventive and controls measures that can be implemented to avoid such accidents in the future (12 marks)

- END OF QUESTIONS -