



**UTHM**

Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2014/2015**

**COURSE NAME** : OCCUPATIONAL SAFETY AND HEALTH

**COURSE CODE** : BFC 43501

**PROGRAMME** : BACHELOR OF CIVIL ENGINEERING WITH HONOURS

**EXAMINATION DATE** : JUNE 2015 / JULY 2015

**DURATION** : 1 HOUR

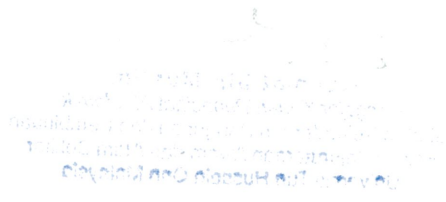
**INSTRUCTION** : ANSWER **TWO (2)** QUESTIONS ONLY

THIS PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** (a) Explain **THREE (3)** regulations on occupational safety and health as stated in Act 514. (15 marks)
- (b) From a civil engineer perspectives, explain the **THREE (3)** importance of safety in construction. (10 marks)
- Q2** HIRARC is a fundamental practice in managing construction risk.
- (a) Define the HIRARC and state the purpose of its implementation. (5 marks)
- (b) List **FIVE (5)** sources of hazard. (5 marks)
- (c) **FIGURE Q2** shows a scenario that happened on site where the construction works took place. To ensure the work activities being carried out are safe and healthy, a potential hazards need to be identified, assessed and controlled. Analyse the photo given. Prepare and produce HIRARC to ensure the hazard is as ALARP. (15 marks)
- Q3** (a) List **FOUR (4)** types of incidents and give an example for each. (4 marks)
- (b) Describe the meaning of 'near miss' in perspective of occupational safety and health. (3 marks)
- (c) Explain the importance of investigation for accident in construction projects. (4 marks)
- (d) When an incident occurred on site, there will be two groups involved to perform the investigation that is the internal investigation team and external investigation team. Identify all members of each team. (6 marks)
- (e) A good strategy is required to ensure the root cause of accident can be identified and prevent the same thing happen in future. Explain the strategies of investigation in sequence base on your understanding. (8 marks)

- Q4** (a) In order to carry out risk management effectively, it is vital to understand the whole process. With aid of sketches, explain the process of risk management in construction project. (7 marks)
- (b) Potential hazard needs to be identified in order to control the construction risk. List **SIX (6)** hierarchies of the control measures and explain each one of them. (12 marks)
- (c) As a Safety & Health Officer, determine the action needs to be considered in Occupational Health and Hygiene aspects to the following causes for the well being of the workers:
- (i) Chemical Hazards
  - (ii) Physical Hazards
  - (iii) Biological Hazards
- (6 marks)

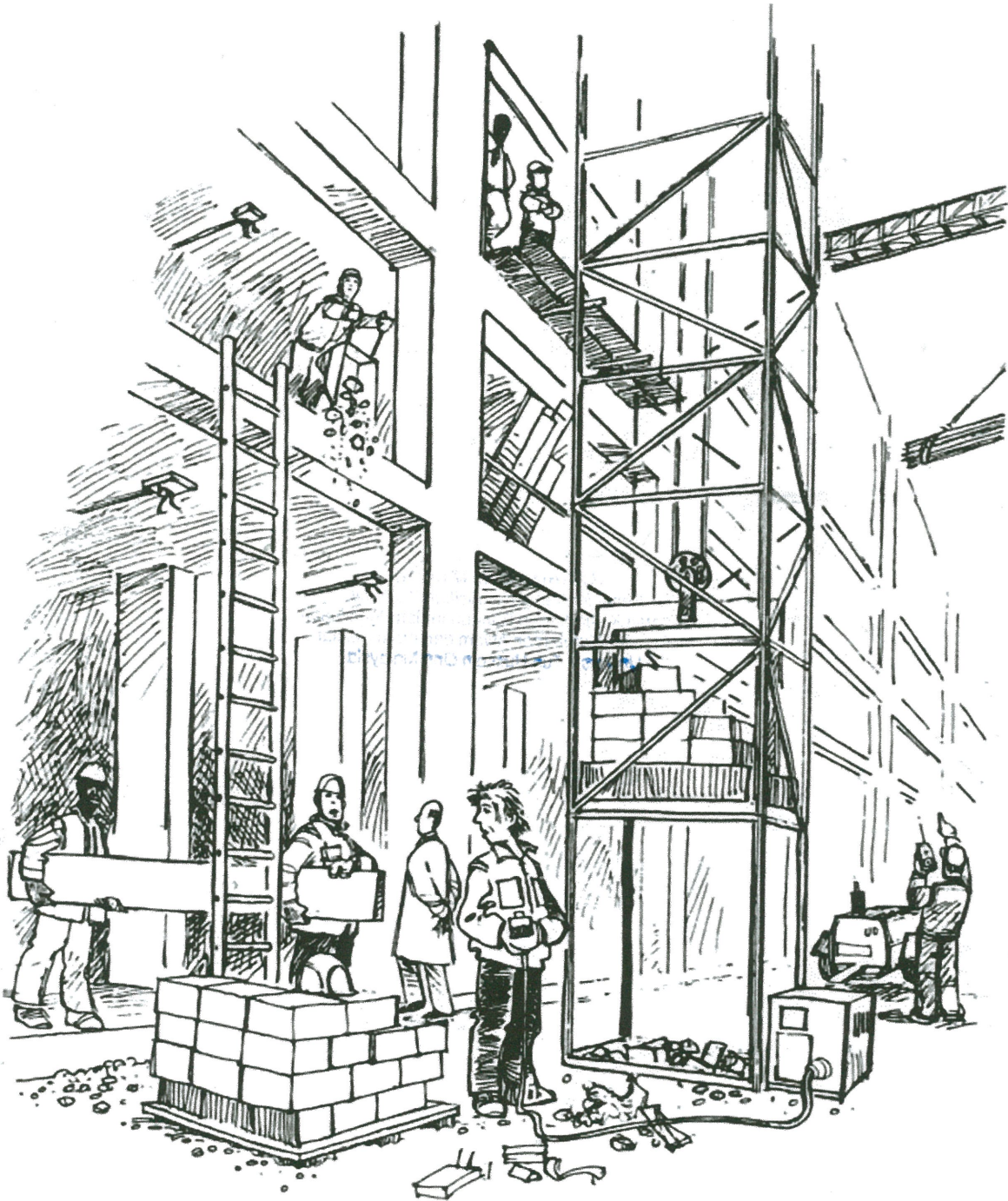
**- END OF QUESTION -**



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**FIGURE Q2**