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**UTHM**  
Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
(TAKE HOME)  
SEMESTER I  
SESSION 2020/2021**

COURSE NAME : WORKPLACE HAZARD ANALYSIS  
COURSE CODE : BNS 10303  
PROGRAMME CODE : BNS  
EXAMINATION DATE : JANUARY/FEBRUARY 2021  
DURATION : 3 HOURS  
INSTRUCTION : ANSWERS FOUR (4) QUESTIONS ONLY

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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- Q1** (a) Define term:
- i. HIRARC
  - ii. JSA
  - iii. HAZOP
  - iv. DOWEC
  - v. FTA
- (10 marks)
- (b) Explain the purpose of HIRARC.
- (5 Marks)
- (c) UTIIM is committed to providing a healthy and safe working and learning environment sound practices in the conduct of university activities. Design a checklist for the prevention of accidents at workplace.
- (10 Marks)
- Q2** (a) Based on the **Figure Q2 (a)**, list **FIVE (5)** hazards that exist in this workplace.
- (5 marks)
- (b) Based on the answer in **Q2 (a)**, analysis only **THREE (3)** hazard in this workplace using JSA technique.
- (8 marks)
- (c) As a health and safety representative your role is to work proactively (this means taking action before hazards become a problem) to prevent workers from being exposed to occupational hazards. Identify and describe common rules for good work practices in order to ensure a safe and healthy workplace.
- (12 marks)
- Q3** (a) **Figure Q3 (a)** shows a workplace where a variety of hazards can be found. Describe **FIVE (5)** hazard in this workplace.
- (10 Marks)
- (b) Warnings do not prevent exposure to a hazard, but they do provide a visual or audible indicator to warn people of potential danger. Give **Five (5)** examples of warnings that can explain the hazards at this workplace.
- (5 marks)
- (c) Based on your answer in **Q3 (a)**, prepare HAZOP analysis should be taken to avoid these incidents.
- (10 Marks)

**Q4** HAZOP is one famous technique in workplace hazard analysis;

- (a) Discuss the various methods of identifying hazards at workplace. (7 marks)
- (b) Explain the hierarchy of the control measures. (6 marks)
- (c) Determine the differences between hazard identification, risk assessment and risk control in a table format.

(12 Marks)

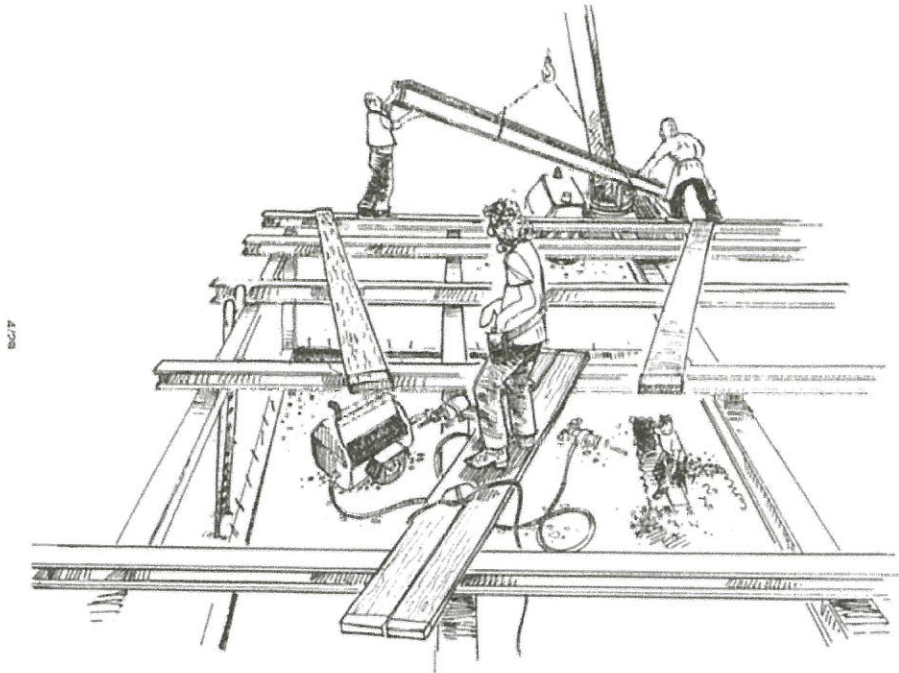
- END OF QUESTIONS -

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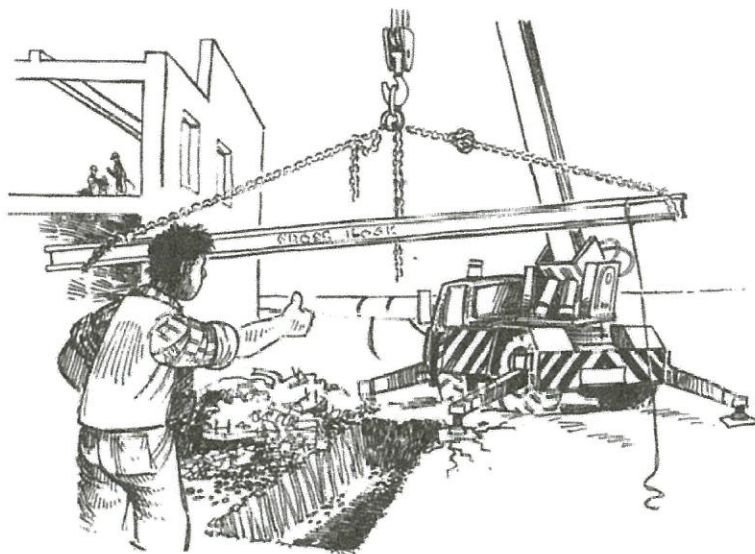
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**Figure Q2(a)**



**Figure Q3 (a)**