



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2019/2020**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH  
COURSE CODE : BWU 10302  
PROGRAMME CODE : BWC / BWD / BWB  
EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020  
DURATION : 2 HOURS 30 MINUTES  
INSTRUCTION : ANSWER ALL QUESTIONS

**TERBUKA**

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

- Q1** (a) The compliance of Occupational Safety and Health (OSH) with the national laws regulations and practice is the responsibility of the employer by establishing the OSH Management System (OSHMS). Explain **FIVE (5)** main elements of OSHMS. (10 marks)
- (b) Describe **FIVE (5)** structures that should be taken by the employer in order to allocate responsibility, accountability, and authority for the development, implementation, and performance of the OSHMS system. (10 marks)
- Q2** (a) Risk management is considered as an important legal requirement to minimize or control the probability of occurrence and the impact of negative events by complying the right process or cycle.
- (i) List **FIVE (5)** processes in managing the risk. (5 marks)
- (ii) A risk might be controlled by employing the appropriate risk management processes. Identify and explain the possible factors that may lead to the failure of risk management. (5 marks)
- (b) Hazard identification, risk assessment and risk control (HIRARC) is the process of evaluating the risks to safety and health arising from hazards at work and determining the suitable ways to eliminate or control the hazard and risk. By referring to **Figure Q2(b)**, construct a suitable HIRARC report for the kitchen activity. (10 marks)
- Q3** (a) The usage of mechanical equipment in a workplace can be very helpful to simplify work task, reduces work time and worker ergonomic risk which may increase the productivity. However, the equipment may also increase the risk to the workers. Outline the appropriate prevention and control methods in handling the mechanical equipment. (10 marks)
- (b) Excavation failures at construction sites are particularly dangerous because they may occur immediately, especially if it comes from the failure of soil structure. Propose a safety work procedure for trench excavation using bulldozers. (10 marks)

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- Q4** (a) A boiling liquid expanding vapor explosion (BLEVE) occurs when the catastrophic failure of a vessel containing liquid flammable material in pressurized condition.
- (i) Identify **FOUR (4)** health hazards due to BLEVE. (4 marks)
  - (ii) Conclude the catastrophic failure of the vessel in order to have BLEVE. (6 marks)
- (b) Noise is one of the most common occupational health hazards. By considering each element in hierarchy of control, propose a Hearing Loss Prevention Programme for quarrying activity. (10 marks)
- Q5** (a) Many workers were injured and killed each year while working in confined spaces. A confined space can be more hazardous than regular workspaces for many reasons. Many factors need to be evaluated when looking for hazards in a confined space. As a Safety Health Officer (SHO),
- (i) Outline the investigation steps while handling the accident in confined spaces. (7 marks)
  - (ii) Discuss why a confined space hazard assessment should be implemented. (3 marks)
- (b) In October 2019, three workers who were working on the 11-story Charter Building in downtown Kuala Lumpur were killed after the partial collapse of a scaffold. A fourth worker was seriously injured. Megajaya Construction, the general contractor on the project said in a statement that the accident involved a mast climber scaffold. Based on this case study, organize an emergency response team and determine each of their roles. (10 marks)

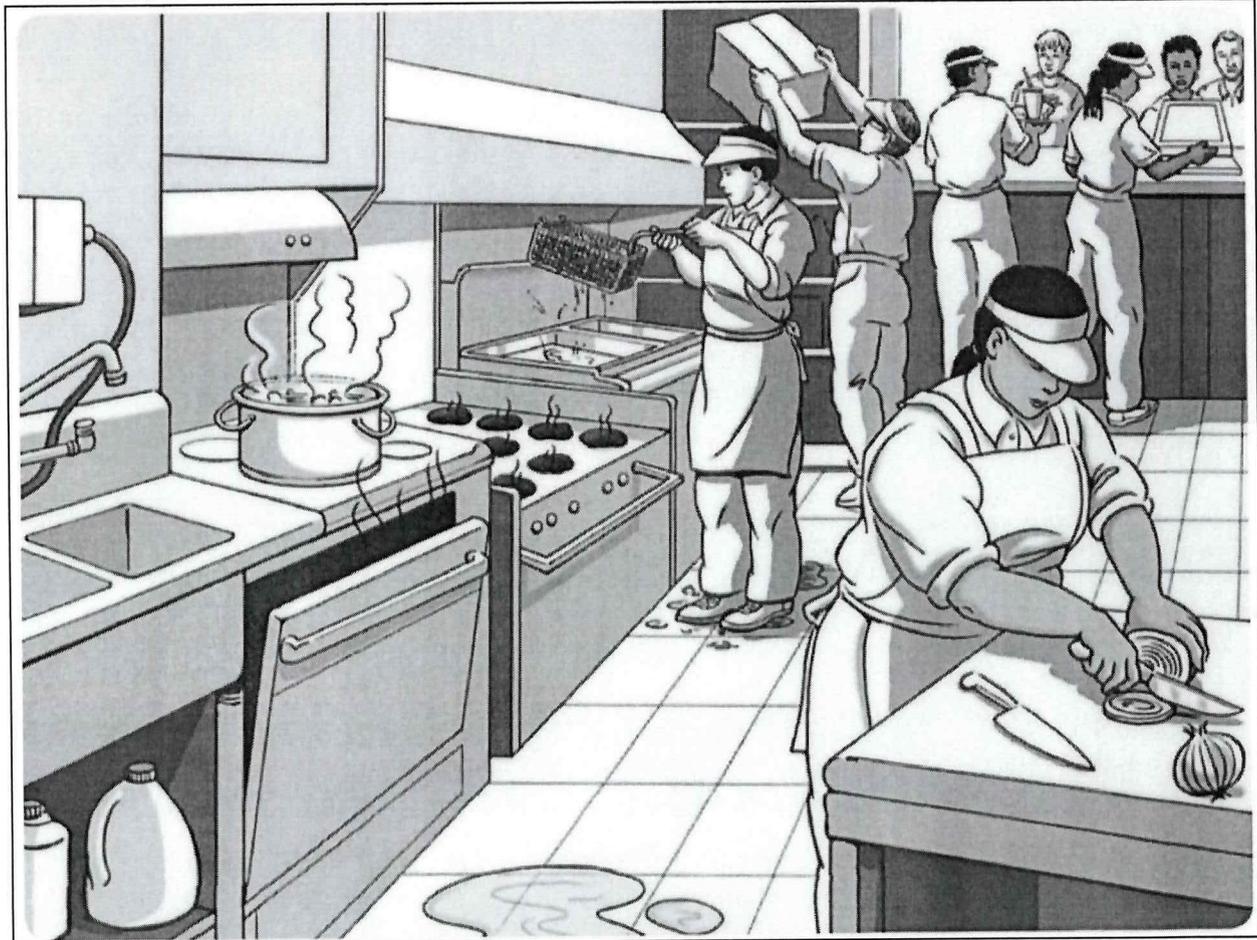
– END OF QUESTIONS –

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*Source: Work Safe! University of California at Berkeley*

**Figure Q2(b)**

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