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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2023/2024**

COURSE NAME : OCCUPATIONAL, SAFETY AND HEALTH
COURSE CODE : DAU 18102
PROGRAMME CODE : DAU
EXAMINATION DATE : JANUARY/FEBRUARY 2024
DURATION : 2 HOURS
INSTRUCTIONS : 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) Safety and health, although closely related, are not the same. Differentiate between these two (2) terms. (4 marks)
- (b) Occupational, safety and health (OSH) is a cross-disciplinary area concerned with protecting safety and health related to work. Define all the following related to OSH.
- (i) Ergonomics
 - (ii) Psychosocial
 - (iii) Welfare
 - (iv) Risk
 - (v) Hazard
 - (vi) Danger
 - (vii) Biological
- (7 marks)
- (c) The Occupational, Safety and Health Act, OSHA 1994 (Act 514) is a regulation under OSHA 1994. There are three (3) types of legal structures in OSHA 1994. Compare all of them. (9 marks)
- Q2** Hazard analysis is a crucial part of determining risk management and risk assessment in a workplace. One of the techniques involved is Hazard Identification, Risk Assessment, and Risk Control (HIRARC).
- (a) List five (5) sources of hazards in Hazard Identification (HI). (5 marks)
- (b) Describe three (3) purposes of Hazard Identification, Risk Assessment, and Risk Control, HIRARC. (6 marks)
- (c)

Trailing electrical cables that trail through the middle of a busy walkway.

- (i) Based on the situation **Q2(c)**, identify the source and classifications of hazards. (2 marks)
 - (ii) Determine the quantitative risk assessment calculation of Risk = Likelihood x Severity for the situation. Give your justification for the answer. (5 marks)
 - (iii) Suggest the risk control for the situation based on your answer **Q2(c)(ii)**. (2 marks)

- Q3** (a) Define and give an example of a physical injury. (2 marks)
- (b) Construction work usually involves civil work.
- i) State four (4) typical hazards in construction work. (4 marks)
- ii) Discuss three (3) phases of construction work (6 marks)
- (c) Short circuits are a potential electrical hazard that can cause electrical shock. Explain four (4) major causes of electrical shock in electrical hazards. (8 marks)
- Q4** (a) (i) List four (4) possible routes of chemical entry into the human body. (4 marks)
- (ii) Explain one (1) example of an incident and its effects on the human body for each answer mentioned in **Q4(a)(i)**. (4 marks)
- (b) Biological agents, including bacteria, viruses, fungi, and other microorganisms, could affect human health in various ways.
- (i) Define the terms agent and host in biological hazards. (4 marks)
- (ii) There are four (4) classifications of biohazard depending on different descriptions of agents. Explain all about these classifications with an example. (8 marks)

Q5 When an accident occurs, it must be investigated thoroughly because the result can help pinpoint the cause and help prevent future accidents.

- (a) Define the term accident. (2 mark)
- (b) Describe four (4) purposes for investigating an accident. (4 marks)
- (c) There are two (2) types of accident investigation for accident reporting. Compare the difference between these types of accident reporting. (6 marks)
- (d) Explain four (4) basic types of accidents. (8 marks)

-END OF QUESTIONS -

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