

**CONFIDENTIAL****UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2016/2017**

**COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH**  
**COURSE CODE : BDA 31302**  
**PROGRAMME : 3 BDD**  
**EXAMINATION DATE : JUNE 2017**  
**DURATION : 2 HOURS**  
**INSTRUCTION : ANSWER FOUR (4) QUESTIONS ONLY**

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

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- Q1** ABC Sdn Bhd is an automobile manufacturer that produces a continuous variable transmission (CVT) product. The company currently employ 35 workers and plan to employ another 70 workers due to increasing in product demand. You are one of the new recruitment and appointed as a safety and health engineer at this company. You have been assigned to look on relevance act and establish a safety and health (SH) committee at the work place.
- (a) Suggest relevant act and department that responsible in enforcing the requirement to establish SH committee at work place. (2 marks)
  - (b) Interpret the penalty, if the company contravenes the requirement to establish SH committee at the work place. (2 marks)
  - (c) Propose the designated posts and the appointment criteria for SH committee. (6 marks)
  - (d) Justify the purpose of establishing the SH committee. (7 marks)
  - (e) Develop the SH committee organisation chart for the company. (8 marks)
- Q2**
- (a) Risk = Likelihood x Severity. Examine this statement and provide suitable interpretations for each term in relation to the area of occupational safety and health. (6 marks)
  - (b) You have been appointed as a personnel responsible for the safety and health for your department. In a recent company meeting, you have been requested to propose a Hazard Identification, Risk Assessment and Risk Control (HIRARC) process for your company. Construct an appropriate flowchart to correctly represent your proposed HIRARC process and support your proposal by explaining each important element of the flowchart. (19 marks)

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- Q3** (a) “Five people were killed on Saturday when a private helicopter crashed in Kuala Lumpur during installation of final part top of a communication tower, including the co-pilot and workers of Helistall Sdn. Bhd. The death comprised all three men on board, a pregnant woman and a child who were walking along the busy road on which the helicopter crashed”.

Referring to this accident, provide your evaluation and suggestion on:

- i. Potential factors that cause the accident. (6 marks)

- ii. Strategies for hazards prevention and control. (6 marks)

- (b) Machineries and equipments in manufacturing industries require proper handling to ensure safety. Provide your evaluation and suggestion on:

- i. Typical accidents related to mechanical handling machineries and equipments. (6 marks)

- ii. Strategies for accident prevention related to mechanical handling machineries and equipments. (7 marks)

- Q4** (a) Occupational health is about promotion and maintenance of the physical, mental and social levels of staff in all work sectors as well as prevention from illnesses and diseases. Construct a diagram that explains the concept of promotion and prevention of occupational health. (7 marks)

- (b) Principle of Industrial Hygiene comprises of hazard anticipation, hazard identification, risk assessment and risk control of chemical hazards, physical hazards and biological hazards from work activities with the objective to prevent or reduce the risks to health. Construct a summary table consisting of **THREE (3)** types of hazards with at least **THREE (3)** related examples of the hazards. (9 marks)

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- (c) The objective of observation and inspection (O&I) is to identify health hazards at the workplace and ensure that occupational safety and health procedures are implemented. Compare **THREE (3)** workplace observation approaches to identify health hazards from both planned and unplanned activities.

(9 marks)

- Q5** (a) Heinrich had introduced a theory of accident in 1930's.

- i. Select and draw a suitable diagram that represents Heinrich's theory of accident.

(5 marks)

- ii. Suggest how this theory can be applied in a mechanical workshop to prevent accident.

(2 marks)

- (b) Assuming there is an incident happens at your workplace as a result of poor management.

- i. Propose **FOUR (4)** root causes of incident based on evaluation of the situation. Support your proposal with suitable explanation.

(8 marks)

- ii. Suggest **FIVE (5)** principles of the incident prevention toward improving the working environment. Support your suggestion with suitable description.

(10 marks)

- END OF QUESTION -