



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018**

COURSE NAME : ENGINEER AND SOCIETY
COURSE CODE : BNR 42702
PROGRAMME CODE : BND
EXAMINATION DATE : JUNE / JULY 2018
DURATION : 2 HOURS AND 30 MINUTES
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

- Q1** (a) Discuss the functions of engineer. (8 marks)
- (b) Briefly explain your understanding on Engineering. (4 marks)
- (c) There are **TWO (2)** routes to apply for professional engineer. Demonstrate each of them. (8 marks)
- Q2** (a) Explain differences between things that can be protected under copyright and cannot be protected under copyright. (4 marks)
- (b) An engineer's ethical decisions can give impacts on many areas. Explain briefly the impacts on each area. (8 marks)
- (c) Explain briefly the importance of intellectual property. (8 marks)
- Q3** (a) Safety is important at any workplace. Discuss why safety is important and must be considered in our workplace. (8 marks)
- (b) Gary is the engineer for Public Works in a city that has several large food-processing plant. The plant discharge large amounts of waste into the wastewater system during its operation. Gary is responsible for the wastewater treatment plant and reports to James about its operation. Gary tells James that the wastewater treatment plant is not capable of handling potential overflow during the rainy season and offers several possible solutions. James replies they will face the problem only when it happens. Gary privately notifies city officials about the wastewater treatment plan problem. James knows about that and removes Gary from his position as person in charge for wastewater treatment plant.
- (i) Relate Gary's action with whistle blowing and explain briefly his action. (6 marks)
- (ii) Apply engineering ethics and discuss James's action toward Gary. (6 marks)

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- Q4** (a) In order to monitor occupational safety and health issues, risk assessment is very important. One of tools for risk assessment is HIRARC. Apply steps to be done in HIRARC. (6 marks)
- (b) Big company usually has their own business ethics culture. Explain briefly each following components in business ethics:
- (i) Leadership
 - (ii) Corporate Social Responsibility
 - (iii) Workplace Issues
 - (iv) Product and Brand
- (8 marks)
- (c) Discuss briefly on professional rights for engineer. (6 marks)
- Q5** (a) Sustainability development should be implemented in engineering field in our country to protect next generation. Relate engineers' role in implementing sustainable development. (6 marks)
- (b) An engineer employed by a corporation is instructed by his immediate supervisor to be lenient on factors of safety in order to reduce manufacturing costs. This is because of the pressures of management to obtain and sustain their business. The engineer believes that this procedure will jeopardize the health and safety of the workers.
- (i) Apply engineering ethics, discuss the engineer situation and analyse what he should do. (8 marks)
 - (ii) Produce steps to be done to ensure workers safety in manufacturing section. (6 marks)

TERBUKA**- END OF QUESTIONS -**