



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2011/2012**

COURSE NAME : ENGINEERS AND SOCIETY
COURSE CODE : BEE 10202 / BPK 4032 / BEX 42702
PROGRAMME : BEE
EXAMINATION DATE : JUNE 2012
DURATION : 2 HOURS
INSTRUCTION : ANSWER **FOUR (4)** QUESTIONS ONLY

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

- Q1** (a) An engineer must comprehend what constitutes as his or her obligations. Distinguish the **THREE** types of obligations. (10 marks)
- (b) Study the following scenario and answer the questions.
“QS Sdn Bhd, a registered electrical contractor, engaged an engineer, Ir Don to design an industrial electrical installation for a food processing plant. Ir Don finally produced, what he believed, the best possible design considering all factors and local byelaws. Nonetheless, his client did not agree with the design in which he speculated that it would be expensive and complex. The client demand Ir Don to surrender the design so that he may engage another consulting engineer. Ir Don refused to cooperate.”
- (i) Identify the kind of obligations that motivate Ir. do not to cooperate. (8 marks)
- (ii) Illustrates the ethical clauses that relate to the above scenario. (7 marks)
- Q2** (a) Compare and contrast between the responsibilities of an employer and an employee under the OSHA Act. (13 marks)
- (b) What is whistle blowing? Characterise **FOUR** main features of whistle blowing. What are the necessary guidelines that must be followed when an engineer decide to proceed with the act of whistle blowing? (12 marks)
- Q3** Engineering is a profession that has standards of conduct and responsibilities based on specialised knowledge and professional status that can be acquired through well defined ways. The scope of engineering works can be classified according to disciplines, careers or functions.
- (a) Categorize and elaborate on duties of engineers based on functions. (15 marks)
- (b) How do engineers enhance their competencies in order to attain the class of effective engineers. (4 marks)
- (c) Discuss on factors in the work of engineers that are considered as issues of professional responsibility. (6 marks)

- Q4**
- (a) Why are professional ethics important to engineers?
(6 marks)
- (b) "Ethical standards of practice have never been more besieged than they are today. Those with strong moral fiber, a dedication to professional integrity, and the ability to reason soundly must find the power to resist the attack." – Lewis 1995. According to the statement, what should the engineers watch out for offering and acceptance of illegal advantages?
(6 marks)
- (c) Engineers are often entrusted with the responsibility of implementing large-scale projects involving millions of Ringgit. In view of the large amount of money changing hands, the integrity and ethical standards of engineers are being put to test. What measures can an engineer take to prevent corruption and unethical practice of cutting corners in order to safeguard the good image of the engineering profession?
(6 marks)
- (d) A government chief engineer took advantage of his office to solicit \$400,000 from a project manager of a land development company as a reward for his assistance in obtaining green light for the company's car park development project. Subsequent to the first application of the project being turned down by the relevant government department, the chief engineer asked for the advantages from the company. Frustrated at being asked to pay bribes to secure the project, the project manager reported the case to the Anti Corruption Agency (ACA). The chief engineer eventually convicted of soliciting and accepting illegal advantages, was sentenced to an imprisonment of four years and six months. Explain in brief the wrongdoing of the chief engineer in accepting bribes in granting project approval.
(7 marks)

- Q5** (a) The obligations and rights of an employment contract are covered by the Employment law. Define what Employment law is?
(4 marks)
- (b) A contract of service must contain a provision for its termination. In each of the following cases, determine the period of notice for termination if an employee employed for:
- (i) three years
 - (ii) one and half year
 - (iii) ten years
- (6 marks)
- (c) Classify **TRUE** or **FALSE** on each of the following statements which regard to The Employment Act 1955:
- (i) If an employee has been continuously absent from work for more than two consecutive working days without prior leave from his employer and reasonable excuse for such absence, his/her employer has right to terminate his/her service.
 - (ii) An employee is eligible for advance payment from his/her employer, which exceeds the amount of wages which the employee earned in the preceding month, to purchase a car.
 - (iii) A female employee also can be employed in any underground working.
 - (iv) Female employee is entitled to maternity leave until three months.
 - (v) Birthday of Prophet Muhammad is a federal public holiday.
- (15 marks)
- Q6** (a) What 'citation' means in implementing Occupational Safety and Health Act 1994?
(5 marks)
- (b) Differentiate between an engineer and a scientist.
(8 marks)
- (c) Explain **FOUR** roles of an engineer.
(12 marks)