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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2015/2016**

COURSE NAME : ENGINEERS AND SOCIETY
COURSE CODE : BEE 10202
PROGRAMME : BEJ/BEV
EXAMINATION DATE : JUNE/JULY 2016
DURATION : 2 HOURS
INSTRUCTION : ANSWER **FOUR (4)**
QUESTIONS ONLY

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

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Q1 Engineers must fully comprehend the Occupational Safety and Health Act (OSHA) which was enforced for the purposes of securing to the safety, health and welfare of persons at work and for protecting other person against risks to safety in connection with development activities.

(a) Differentiate between the responsibilities of an employer and an employee under the OSHA. (15 marks)

(b) (i) Define the act of whistle blowing. (2 marks)

(ii) Demonstrate **FOUR(4)** main features of whistle blowing. (4 marks)

(iii) Describe the necessary guidelines that must be followed when an engineer decides to proceed with the act of whistle blowing. (4 marks)

Q2 An engineer must comprehend what constitutes as his or her obligations.

(a) Differentiate the **THREE(3)** types of obligations. (15 marks)

(b) Identify, from the BEM Code of Professional Conduct, one item that really correspond to each of the **THREE(3)** types of obligations in **Q2(a)**. (10 marks)

Q3 Ethics is the most important aspect in the Engineering profession.

(a) Discuss the term ethics. Explain the important of having multiple theories of ethics. (4 marks)

(b) Describe the following terms in relation to the ethical theory.
(i) Relativism.
(ii) Utilitarianism
(iii) Duty Ethics and Rights Ethics
(iv) Virtue Ethics. (16 marks)

(c) Explain the concept of Engineering Ethics. (5 marks)



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- Q4** (a) The Code of Professional Conducts is very important document for the Registered Electrical Engineers.
- (i) What is Code of Professional Conducts?
(3 marks)
- (ii) Briefly describe the functions of the Code of Professional Conduct.
(14 marks)
- (b) Ir. Suraya is an engineer who is competent enough to prepare specifications for the electrical engineering installation. Ir. Suraya is also a CEO of a company that manufactures and sells all kinds of electrical engineering installation products. Firm X ask Ir. Suraya to prepare specifications for the electrical engineering installation in a ten storey building. In the context of the BEM Code of Professional Conduct, analyze the following issues.
- (i) Should Ir. Suraya inform Firm X about her other professional job?
(4 marks)
- (ii) Should she agree to propose the specifications and then bid the related tender.
(4 marks)
- Q5** Graduates from the Faculty of Electrical and Electronic Engineering are expected to attain the ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge and needs for sustainable development.
- (a) Briefly describe the meaning of sustainable development. Why is it so important now?
(7 marks)
- (b) With the aid of diagram, describe the "Sphere of Sustainability".
(7 marks)
- (c) How would you foresee your responsibilities as Graduate Engineer towards meeting this statement of sustainable development.
(11 marks)

- End of Questions -

