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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2014/2015**

COURSE NAME : ENGINEER AND SOCIETY
COURSE CODE : BFC 32202
PROGRAMME : 3 BFF
EXAMINATION DATE : DECEMBER 2014/JANUARY 2015
DURATION : 2 HOURS
INSTRUCTION : ANSWER ALL QUESTION

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

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- Q1**
- (a) Elaborate on the steps required to be taken by an engineering graduate to become a registered Professional Engineer in Malaysia.
(6 marks)
 - (b) The scope of engineering works is accorded normally based on disciplines, functions and career paths. Distinguish on the differences of works for engineers based on functions and career paths.
(15 marks)
 - (c) Professional Engineers, lawyers and medical doctors are categorically different from professional footballers, sportsmen/women and artists. Can you defend that statement by judging from the factors involved in the role of engineering?
(4 marks)
- Q2** *“The profession in which a knowledge of the mathematical and natural sciences gained by study, experience, applied practices with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of mankind.”*
- (a) Based on the above statement, how do you translate and point out the deliverable duties as an engineer.
(10 marks)
 - (b) Distinguish between engineer as managers and engineer as consultants.
(10 marks)
 - (c) Differentiate and give example between the so-called Statutory Body and Learned Institution in engineering.
(5 marks)
- Q3**
- (a) Evaluate the importance of Code of Ethics. Explain how Code of Ethics can be applied to help engineers fulfilling their duties.
(10 marks)
 - (b) Intellectual property normally contributes as a development indicator for a nation.
 - (i) Differentiate **three (3)** types of intellectual properties, which are patents, trademarks and industrial designs.
(9 marks)
 - (ii) Define what is copyright and list the terms protected under copyright law.
(6 marks)

- Q4** (a) The first part of the definition of an engineering profession said that these professions involve the use of sophisticated skills. Do you think that these skills are primarily physical or intellectual skills? Give examples from professions such as law, medicine and engineering, as well as from non-professions. (6 marks)
- (b) What is “Conflict of Interest”? Explain using examples. (4 marks)
- (c) Engineer A worked for Engineer B. On November 15, 2014 Engineer B notified Engineer A that Engineer B was going to terminate Engineer A because of lack of work. Engineer A thereupon-notified clients of Engineer B that Engineer A was planning to start another engineering firm and would appreciate being considered for future work. Meanwhile, Engineer A continued to work for Engineer B for several additional months after the November termination notice. During that period, Engineer B distributed a previously printed brochure listing Engineer A as one of Engineer B's key employees, and continued to use the previously printed brochure with Engineer A's name in it well after Engineer B did in fact terminate Engineer A.
- (i) Was it ethical for Engineer A to notify clients of Engineer B that Engineer A was planning to start a firm and would appreciate being considered for future work while still in the employ of Engineer B? (2 marks)
- (ii) Was it ethical for Engineer B to distribute a brochure listing Engineer A as a key employee in view of the fact that Engineer B had given Engineer A a notice of termination? (2 marks)
- (iii) Was it ethical for Engineer B to distribute a brochure listing Engineer A as a key employee after Engineer A's actual termination? (2 marks)
- (d) The Bakun Hydroelectric Project (BHEP) was first proposed in the 1980s as part of series of dams to exploit the hydroelectric potential of Sarawak's rivers. However, it is opposed by many in the indigenous communities, together with opposition politic at parties, a coalition of over 40 Malaysian NGOs, other NGOs and individuals. Both government and NGOs have their justification on this project. The government’s main argument for the project is that it is a cheap source of energy, while NGO’s argue that the project involves considerable and possibly prohibitive risks, and such a massive project would have considerable environmental impact. As an engineer in future, do you agree with the project? Why? (9 marks)

- END OF QUESTION -