



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : ENGINEERS AND SOCIETY
COURSE CODE : BFC 32202
PROGRAMME CODE : BFF
EXAMINATION DATE : DECEMBER 2018/JANUARY 2019
DURATION : 2 HOURS
INSTRUCTION : ANSWER **THREE (3)** QUESTIONS ONLY

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

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- Q1**
- (a) Differentiate between Proper Engineering Decision (PED) and Proper Management Decision (PMD).
(6 marks)
- (b) To help engineers understand the organisational culture of the company they work for, they should be able to distinguish between the types of companies, i.e. Engineer-Oriented, Customer-Oriented and Finance-Oriented. Describe each type of company stated above.
(9 marks)
- (c) An engineer must adhere to the highest principles of ethical conduct when performing his or her duties. With the help of a chart, outline the main components of engineering ethics and provide some examples.
(10 marks)
- Q2**
- (a) State **SIX (6)** environmental issues that engineers and engineering firms should be concerned about when providing their services to society.
(6 marks)
- (b) Describe **THREE (3)** general attitudes of engineering firms towards the environment.
(9 marks)
- (c) The following are 'CERES Principles' that have been adopted by many organisations as part of their code of corporate environmental ideals. Discuss each principle;
- (i) Protection of the biosphere
 - (ii) Sustainable use of natural resources
 - (iii) Reduction and disposal of wastes
 - (iv) Energy conservation
 - (v) Safe products and services
- (10 marks)

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- Q3** (a) There has been a resurgence of interest in modular buildings, a construction technology that was actually introduced after World War II. Describe and provide the benefits of modular buildings in the 21st Century.
(7 marks)
- (b) Differentiate between ‘Research and Development (R&D)’ and ‘Product Development’.
(8 marks)
- (c) Discuss **FIVE (5)** benefits of R&D.
(10 marks)
- Q4** (a) Globalisation is the process by which national and regional economies, societies, and cultures have become integrated through the global network of trade, communication, immigration and transportation.
- (i) State **FIVE (5)** skills engineers should have in order to succeed in the new era of globalisation.
(5 marks)
- (ii) Explain briefly **FIVE (5)** positive impacts of globalisation.
(10 marks)
- (b) Many local engineering firms have resorted to offshoring jobs, meaning that jobs are given to and conducted by firms in other countries. Discuss the adverse impacts of offshoring engineering jobs.
(10 marks)

– END OF QUESTIONS –

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