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**KOLEJ YAYASAN PELAJARAN JOHOR  
FINAL EXAMINATION / PEPERIKSAAN AKHIR**

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**COURSE NAME : ENGINEERING PROFESSIONAL ETHICS**  
**COURSE CODE : DKE 2142**  
**EXAMINATION : NOVEMBER 2020**  
**DURATION : 2 HOURS**

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**INSTRUCTION TO CANDIDATES /  
ARAHAN KEPADA CALON**

1. This question paper consists of **ONE (1)** part :/ PART A (100 Marks) /  
*Kertas soalan ini mengandungi **SATU (1)** bahagian:* *BAHAGIAN A (100 Markah)*
  
2. Candidates do not bring any material into the examination hall/room unless permission is given by the invigilator. /  
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3. Please check to make sure that this examination pack consist of: /  
*Pastikan kertas soalan peperiksaan ini mengandungi:*
  - i. Question Paper /  
*Kertas Soalan*
  - ii. Answer Booklet /  
*Buku Jawapan*

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This examination paper consists of **4** printed pages including front page  
*Kertas soalan ini mengandungi **4** muka surat termasuk kulit hadapan*

This part contains of **FIVE(5)** questions. Answer **ALL** questions in Answering Booklet.

*Bahagian ini mempunyai LIMA (5) soalan. Jawab SEMUA soalan dalam buku jawapan.*

### QUESTION 1/ SOALAN 1

- a) Explain the importance of professional ethics to engineers.

*Bincangkan kepentingan etika professional kepada jurutera.*

**(8 marks/ markah)**

- b) Engineer 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. Explain what measures an engineer can take to prevent corruption and unethical practice of cutting corners in order to safeguard the good image of the engineering profession.

*Jurutera sering diberi tanggungjawab untuk melaksanakan projek berskala besar yang melibatkan jutaan Ringgit. Memandangkan sejumlah besar wang bertukar tangan, integriti dan etika jurutera sedang diuji. Terangkan apa langkah-langkah yang boleh diambil oleh seseorang jurutera untuk mencegah rasuah dan amalan tidak beretika dalam usaha untuk menjaga imej baik profesion kejuruteraan.*

**(12 marks/ markah)**

### QUESTION 2/ SOALAN 2

- a) Differentiate between engineers as managers and engineers as consultants.

*Bezakan antara jurutera sebagai pengurus dan jurutera sebagai perunding.*

**(8 marks/ markah)**

- b) Explain **four (4)** roles of an engineer.

*Terangkan empat (4) peranan jurutera.*

**(12 marks/ markah)**

**QUESTION 3/ SOALAN 3**

- a) Explain briefly the mission and vision of the Board of Engineers Malaysia (BEM).

*Terangkan secara ringkas misi dan visi Lembaga Jurutera Malaysia (LJM).*

**(8 marks/ markah)**

- b) List **SIX (6)** steps are typically required for graduate in Diploma of Electronics Engineering to become a professional engineer.

*Senaraikan **ENAM (6)** langkah yang biasanya diperlukan oleh graduan dalam Diploma Kejuruteraan Elektronik untuk menjadi jurutera profesional.*

**(12 marks/ markah)**

**QUESTION 4/ SOALAN 4**

- a) The legislation in Malaysia governing contracts in the Contract Act, 1950 (Revised 1974).

- i) Define the term "Contract".
- ii) List **four (4)** essential elements of a contract.

*Undang –undang kontrak di Malaysia ditadbir oleh Akta Kontrak, 1950 (Pindaan 1974).*

- i) Tentukan istilah "Kontrak".
- ii) Senaraikan **empat (4)** elemen penting dalam kontrak.

**(6 marks/ markah)**

- b) Explain the important of Occupational Safety and Health Act 1994.

*Terangkan kepentingan Akta Keselamatan dan Kesihatan Pekerja 1994.*

**(4 marks/ markah)**

- c) Describe the responsibilities of an employer and an employee under the OSHA Act.

*Huraikan tanggungjawab majikan dan pekerja di bawah Akta OSHA.*

**(10 marks/ markah)**

## QUESTION 5/ SOALAN 5

- a) Give the meaning of technology transfer.

*Berikan maksud pemindahan teknologi.*

**(4 marks/ markah)**

- b) "Environmental ethics can be defined as a commitment and responsibility toward the environment, including plants and animals as well as present and future generations of people. Unfortunately, most of young Malaysian generations overlook on this issue." In your opinion, how to educate a young generation to appreciate, commit and responsible toward the environment?

*"Etika persekitaran boleh didefinisikan sebagai komitmen dan tanggungjawab terhadap alam sekitar, termasuk tumbuhan dan haiwan serta generasi manusia masa kini dan masa hadapan. Malangnya, kebanyakan generasi muda Malaysia tidak memperhatikan isu ini." Pada pendapat anda, bagaimana untuk mendidik generasi muda supaya mereka menghargai, komited dan bertanggungjawab terhadap alam sekitar?*

**(6 marks/ markah)**

- c) Graduate from the Electrical and Electronic Engineering field are expected to attain the ability to understand the impact of professional engineering solution in societal and environmental contexts and demonstrate knowledge and needs for sustainable development. Briefly describe the meaning of sustainable development. Why is it so important now?

*Siswazah dalam bidang Kejuruteraan Elektrik dan Elektronik diharapkan dapat mencapai kemampuan untuk memahami kesan penyelesaian kejuruteraan profesional dalam konteks sosial dan persekitaran dan menunjukkan pengetahuan dan keperluan untuk pembangunan lestari. Huraikan secara ringkas maksud pembangunan lestari. Mengapakah kini ianya begitu penting?*

**(10 marks/ markah)**

**[100 MARKS/ MARKAH]**

**END OF QUESTION PAPER/ KERTAS SOALAN TAMAT**