

**POLITEKNIK**  
Jabatan Pengajian Politeknik

EXAMINATION AND EVALUATION DIVISION  
DEPARTMENT OF POLYTECHNIC EDUCATION  
(MINISTRY OF HIGHER EDUCATION)

CIVIL ENGINEERING DEPARTMENT

FINAL EXAMINATION  
JUNE 2012 SESSION

**CN101 : INTRODUCTION TO ENVIRONMENTAL ENGINEERING**

**DATE : 18 NOVEMBER 2012**  
**DURATION : 2 HOURS (11.15PM - 1.15PM)**

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This paper consists of **SIX (6)** pages including the front page.  
Section A: Objective (**20** questions – answer **all** question)  
Section B: Essay (**4** questions – answer **3** question only)

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**THE CHIEF INVIGILATOR**

(CLO stated at the end of each question is referring to the learning outcome of the topic assessed. The CLO stated is only for lectures' references.)

## SECTION A

## OBJECTIVE QUESTIONS (40 marks)

Instruction: This section consists of 15 fill in the blank questions and 5 true or false questions. Write your answers in the answer booklet.

1. *“The application of science and engineering principles to improve the natural environment, to provide healthy water, air, and land for human habitation (house or home) and for other organisms, and to remediate polluted sites.”* CLO 1 : C1  
This statement is referring to \_\_\_\_\_.
2. The global sum of all ecosystems is \_\_\_\_\_. CLO 1 : C1
3. Common types of pollution are \_\_\_\_\_ and \_\_\_\_\_. CLO 1 : C1
4. *“The contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms.”* CLO 1 : C1  
This statement is referring to \_\_\_\_\_.
5. *“The contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected.”* CLO2 : C1  
This statement is referring to \_\_\_\_\_.
6. The pollution caused by power plants and urban sprawl is \_\_\_\_\_. CLO 2 : C2
7. \_\_\_\_\_ involves any contaminated water, whether from chemical, particulate, or bacterial matter that degrades the water's quality and purity. CLO 2 : C1
8. The source of noise pollution is \_\_\_\_\_. CLO 2 : C1

9. *"Provide facility for waste water treatment and its sewerage system and emptying individual septic tank"* CLO 2 : C1  
The statement above describes the role of \_\_\_\_\_.
10. In Malaysia, the Department of Occupational Safety and Health (DOSH) under the \_\_\_\_\_ is responsible to ensure that the safety, health and welfare of workers in both the public and private sector are upheld. CLO 2 : C1
11. \_\_\_\_\_ and climate change refer to an increase in average global temperatures CLO 2 : C4
12. The emphasis on human interests and their survival in the future in Environmental Ethics is referring to \_\_\_\_\_. CLO 2 : C1
13. Code of Environmental Ethics is \_\_\_\_\_. CLO 2 : C4
14. Greenhouse gases are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_. CLO 2 : C4
15. EPA stands for \_\_\_\_\_. CLO 2 : C2
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16. Wind can disperse the pollution from its sources to other places ( True or False) CLO 1 : C1
17. Air pollution, whether from chemical, particulate, or bacterial matter that degrades the water's quality and purity. ( True or False) CLO 2 : C1
18. Soil pollution sources are hazardous waste and sewage spills ( True or False) CLO 1 : C1

19. Act relating to air pollution is Environmental Quality Act (Dioxin and Furan) Regulations 1984 CLO 2 : C4  
( True or False)
20. Lifestyle, sustainable consumption and production are among the goals established by the National Environmental Policy CLO 2 : C4  
( True or False)

**SECTION B****ESSAY (60 marks)**

Instruction: This section consists of **FOUR (4)** essay questions. Answer **THREE (3)** questions.

**QUESTION 1**

- (a) Give the definition of :- CLO 1 : C1
- i. Environment (3 marks)
  - ii. Biosphere (2 marks)
  - iii. Pollution (3 marks)
- (b) Explain briefly the importance to protect and preserve the environment. CLO 1 : C3  
(12 marks)

**QUESTION 2**

- (a) List **FOUR (4)** types of pollution. CLO 2 : C1  
(4 marks)
- (b) Explain briefly the effects of water pollution on: CLO 2 : C2
- i. Human beings (4 marks)
  - ii. Plants and animals (4 marks)
- (c) Explain **FOUR (4)** types of pollutants in air pollution particles. CLO 2 : C2  
(8 marks)

**QUESTION 3**

- (a) List down **FOUR (4)** government agencies / private sector responsible in managing environment and the roles of each government agencies / private sector. CLO 2 : C1  
(8 marks)
- (b) Describe briefly the purpose of raw water treatment process. CLO 2 : C3  
(12 marks)

**QUESTION 4**

- (a) List **SIX (6)** Environmental Quality Regulations 1974. CLO 2 : C1  
(6 marks)
- (b) Describe briefly **FOUR (4)** principal of National Environmental Policy. CLO 2 : C4  
(8 marks)
- (c) Explain briefly Environmental Quality Act 1974 CLO 2 : C4  
(6 marks)