



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

COURSE NAME : NATURE CONSERVATION
COURSE CODE : BFC 10202
PROGRAMME : BACHELOR OF CIVIL ENGINEERING
WITH HONOURS
TEST DATE : DECEMBER 2015/ JANUARY 2016
DURATION : 2½ HOURS
INSTRUCTION : ANSWER **FOUR (4)** QUESTIONS FROM
FIVE QUESTIONS PROVIDED

THIS PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** (a) State **FOUR (4)** types of ecological interaction and briefly describe **TWO (2)** of the types. (6 marks)
- (b) Briefly explain **THREE (3)** examples of renewable energy and the sources. (6 marks)
- (c) Discuss the following major environmental issues: (13 marks)
- i. Rare-earth processing in Gebeng
 - ii. Bauxite mining in Kuantan
 - iii. Illegal logging in Cameron Highland
- Q2** (a) List **FOUR (4)** issues in biodiversity. (4 marks)
- (b) Discuss **FOUR (4)** methods of prevention to decrease the impact of water pollution and give **TWO (2)** examples of each water pollutant as follow: (10 marks)
- i. Pathogens
 - ii. Chemicals
 - iii. Thermal
- (c) Explain briefly the characteristics of carbon dioxide (CO₂) as one of the major air pollutant and discuss thoroughly the impact of the pollution towards global warming and loss of biodiversity in Malaysia. (11 marks)

Q3 (a) One of the three guiding principles for conservation is ‘changes are evolutionary’. By giving an example, explain this principle.

(4 marks)

(b) There are six important items in formulating a successful management plan for ecosystems. Briefly discuss **THREE (3)** of the items.

(6 marks)

(c) Define protected area (PA). Outline the opportunities and benefits derived from establishing PAs.

(6 marks)

(d) Forest ecosystem plays a vital role in maintaining environmental stability and quality. However, there are activities which are threatening the forest ecosystem. Provide **THREE (3)** examples of the threat and plan the conservation method of each.

(9 marks)

Q4 (a) Suggest **TWO (2)** methods to reduce impacts of earthquake.

(6 marks)

(b) Explain the formation of volcanoes.

(7 marks)

(c) Briefly discuss geological processes in causing natural disaster and propose **THREE (3)** solutions.

(12 marks)

- Q5**
- (a) Identify **TWO (2)** key concepts of sustainable development.
(1 marks)
 - (b) Define sustainable development based on ‘Our Common Future (1987)’.
(2 marks)
 - (c) Propose **THREE (3)** suggestions to improve the understanding of sustainable development amongst industrial practices.
(6 marks)
 - (d) Classify learning objectives of environmental education into **EIGHT (8)** characteristics.
(8 marks)
 - (e) Discuss the importance of practicing environmental ethics and give **FOUR (4)** reasons.
(8 marks)

- END OF QUESTIONS -