



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER 1  
SESSION 2017/2018**

COURSE NAME : BIODIVERSITY AND GLOBAL ENVIRONMENTAL CHANGE

COURSE CODE : BWJ 30503

PROGRAMME CODE : BWW

EXAMINATION DATE: DECEMBER 2017/ JANUARY 2018

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

- Q1**
- (a) List down **FIVE (5)** geologic eras according to the theory of evolution of Earth. (5 marks)
  - (b) Explain the pattern of movement of human civilization on Earth from the earliest time to the modern age of today. (5 marks)
  - (c)
    - (i) Illustrate the link between and among the **FOUR (4)** major systems on Earth. (5 marks)
    - (i) From the same illustration, analyze what happens to the system when natural disaster occurs. Be specific by giving an example. (5 marks)
- Q2**
- (a) Explain the difference between natural greenhouse effect and human enhanced greenhouse effect. (5 marks)
  - (b) Illustrate how the Great Ocean Conveyor Belt is crucial to the global climate pattern. (5 marks)
  - (c) Analyze how land use and land use change are affecting the Earth's climate system. Explain your answer through radiative forcing. (5 marks)
  - (d) Referring to **Figure Q2(d)**, compare the CO<sub>2</sub> emission and absorption capacity between forest and oil palm plantation. (5 marks)
- Q3**
- (a) Demonstrate how the Keeling Curve has shaped the current scientific understanding of global warming and climate change. (5 marks)
  - (b) Referring to **Figure Q3(b)**, analyze the global impact of monocrop agriculture to the environment. (5 marks)
  - (c) Given both **Figures Q2(d)** and **Q3(b)**, assess the implication these information can provide in terms of
    - (i) Current land use, land use change and forestry (LULUCF)
    - (ii) Current climate scenario
 (10 marks)

**TERBUKA**  
(5 marks)

- Q4** The world's population has increased exponentially in the last decades. This results to increased demand food.
- (a) Differentiate extensive from intensive agriculture. (5 marks)
  - (b) Assess the impact of extensive and intensive agriculture to biodiversity. (10 marks)
  - (c) Propose a concept in support to alternative to intensive and extensive agriculture that can sustain supply to food demand and at the same time protect the biodiversity in general. (5 marks)
- Q5**
- (a) Compare the direct impact of climate change between tropical and temperate regions. (5 marks)
  - (b) Recommend a course of actions to be made by the Malaysian government (i.e. federal, state levels) in response to the protection of biodiversity due to climate change. Give example(s) when necessary. (10 marks)
  - (c) Is the government, both federal and state levels have enough legal platforms to protect, conserve and manage biodiversity in Malaysia amidst the changing world? Support your answer by strong proposition. (5 marks)

- END OF QUESTIONS -

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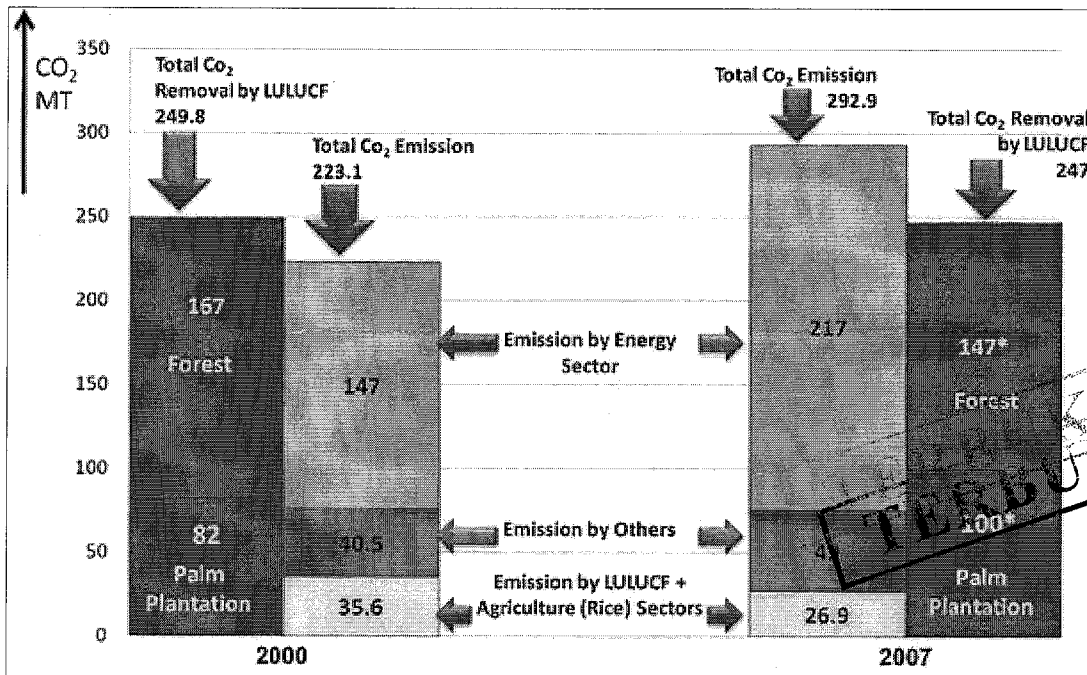


Figure Q2(d): Land Use, Land Use Change and Forestry (LULUCF)

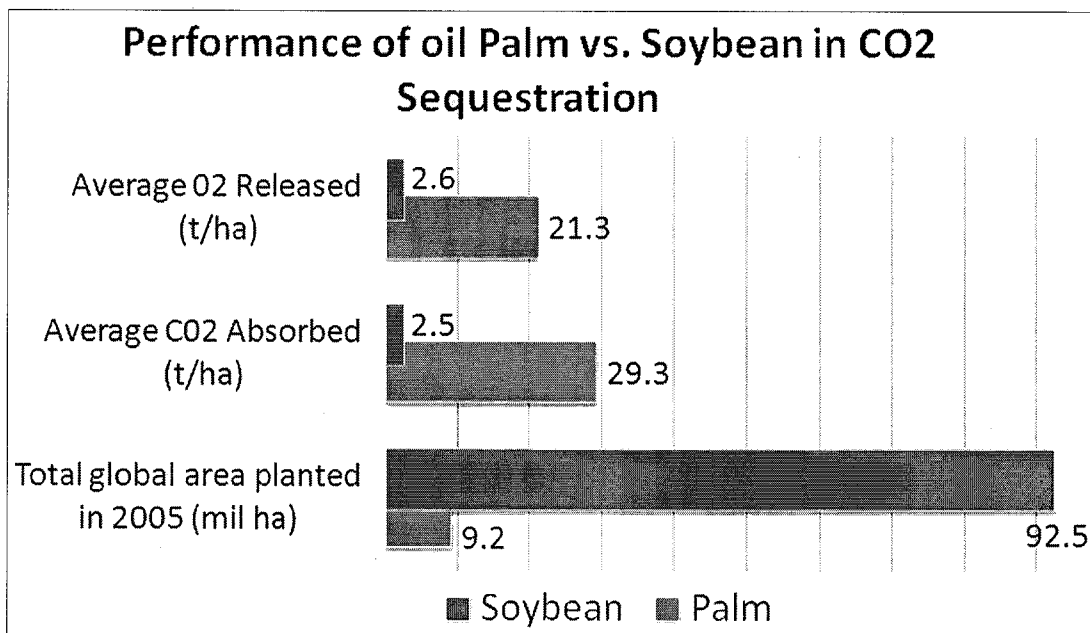


Figure Q3 (b)