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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2021/2022**

COURSE NAME : BIODIVERSITY AND GLOBAL ENVIRONMENTAL CHANGE

COURSE CODE : BWJ 30503

PROGRAMME CODE : BWW

EXAMINATION DATE : JANUARY / FEBRUARY 2022

DURATION : 3 HOURS

INSTRUCTION : 1. ANSWER ALL QUESTIONS.

2. THIS FINAL EXAMINATION IS AN **ONLINE ASSESSMENT** AND CONDUCTED VIA **OPEN BOOK**.

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

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- Q1** (a) All parts of ecosystems are interconnected and interrelated. Explain what happens to the biotic component when there is a volcanic eruption. (10 marks)
- (b) El Niño Southern Oscillation (ENSO) is a natural phenomenon that has global impact. Analyze the impact of ENSO to the peat swamp ecosystem in Peninsular Malaysia (for UTHM students) or in Sumatra (for UGM students). (10 marks)
- (c) Name **TWO (2)** primary reasons behind the drastic increase in human populations in the last century? Justify your answer by providing specific examples. (5 marks)
- Q2** (a) Analyze the pattern shown in **Figure Q2(a)**. What does the graph show? Explain your answer clearly. (5 marks)
- (b) Considering that the temperature anomalies shown in **Figure Q2(a)** refers to global ocean surface temperature, what could have been the impacts to marine ecosystem in Malaysia (for UTHM students) or Indonesia (for UGM students)? Justify your answer and support it with **TWO (2)** specific examples. (6 marks)
- (c) Prove that the pattern shown in **Figure Q2(a)** is driven by human activities. (9 marks)
- (d) Justify how scientists are able to prove that anthropogenic CO₂ is one of the greenhouse gases responsible for global warming and climate change. (5 marks)
- Q3** (a) Relate waste production to the decline of biodiversity in the ASEAN region. (7 marks)
- (b) Given the impacts specified in **Q3(a)**, assess **THREE (3)** practical and realistic approaches that the ordinary people can follow in order to minimize waste production that can cause decline of biodiversity in ASEAN region. (9 marks)
- (c) Determine how unsustainable agricultural practices can be one of the leading causes of loss of biodiversity. Support your answer by citing **THREE (3)** specific examples. (9 marks)
- Q4** (a) Although the impacts of climate change is of global magnitude, different countries or societies are experiencing the effects differently. Assess why some countries or societies are experiencing worse while others are imminently in danger. Support your answer by citing specific example or scenario. (10 marks)



- (b) Kyoto Protocol and Paris Agreement were both drafted with the same goal of abating greenhouse emissions to mitigate climate change. Analyze the main difference in terms of implementation between these two initiatives by citing specific actions of the Malaysian government (for UTHM students) or Indonesian government (for UGM students).

(15 marks)

- END OF QUESTIONS -

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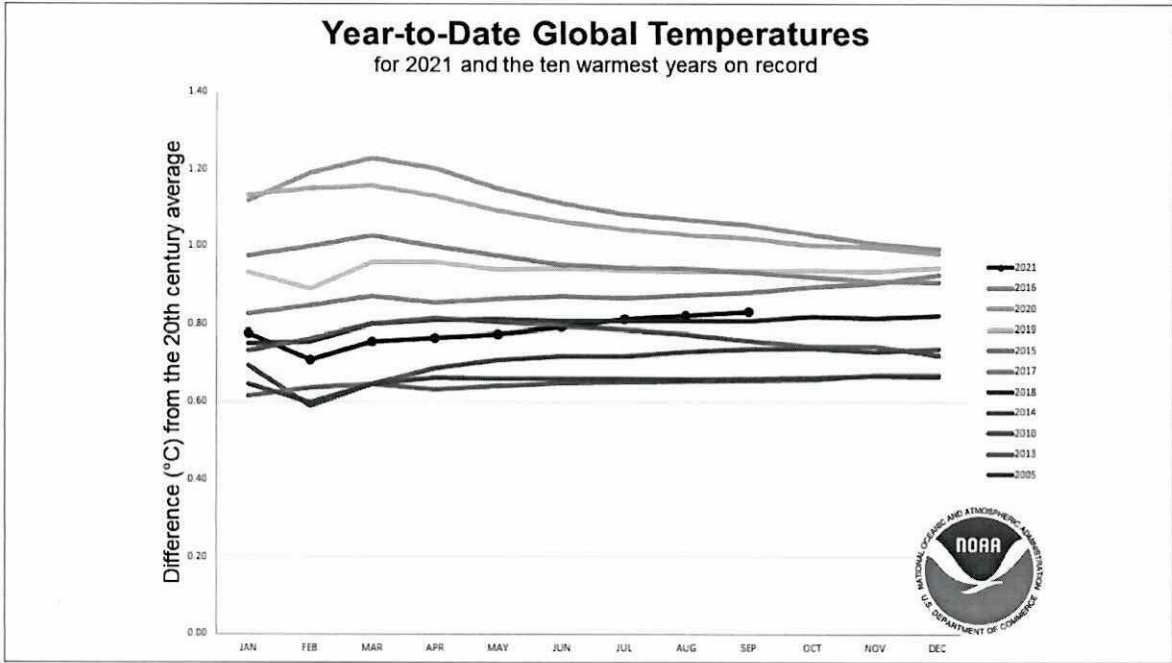


Figure Q2(a)

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