

**UTHM**

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA**FINAL EXAMINATION
SEMESTER I
SESSION 2021/2022**

COURSE NAME	:	FUNDAMENTALS OF EVOLUTION, BIODIVERSITY AND CONSERVATION
COURSE CODE	:	CWJ 10103
PROGRAMME CODE	:	CWJ
EXAMINATION DATE	:	JANUARY/FEBRUARY 2022
DURATION	:	3 HOURS
INSTRUCTION	:	1. ANSWER ALL QUESTIONS. 2. THIS FINAL EXAMINATION IS AN ONLINE ASSESSMENT AND CONDUCT VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **THREE (3) PAGES**

- Q1** Conservation and sustainable development are two concepts with different origins.
- (a) Relating to social, economic and ecological functioning, why do you think Malaysians should be concerned with the loss of biodiversity?
(10 marks)
- (b) One global thinking about conservation of biodiversity is “biodiversity can survive without humans; humans cannot survive without biodiversity”.
- (i) State the key elements in the given statement.
(4 marks)
- (ii) Explain the key element on **Q1(b)(i)**.
(6 marks)
- Q2** (a) Explain the concepts of evolution by highlighting on how living things on earth change over time.
(8 marks)
- (b) Explain what recalcitrant seed is and give **TWO (2)** examples of plants that produce recalcitrant seeds.
(6 marks)
- (c) In cases where seeds are recalcitrant (refer **Q2(b)**), elaborate how would you reproduce new plants by using a named plant, as an example.
(6 marks)
- Q3** (a) (i) Among the Malaysian public, there is a lack of knowledge about biodiversity. Suggest why does this happen.
(4 marks)
- (ii) Outline a simple CEPA programme on how you could increase knowledge of biodiversity among the general public bearing in mind limitations such as funding and space.
(8 marks)
- (b) A pharmaceutical firm decided to bioprospect medicinal plants based on traditional knowledge of a certain ethnic groups who are forest dwellers and are still living in the forest. Suppose they manage to develop and later commercialize a drug based on genetic resources and traditional knowledge of the ethnic, which could control specific disease, analyse what would be the best return to the community.
(8 marks)

- Q4** (a) (i) Indicate the differences between inventory and monitoring. (4 marks)
- (ii) Name **ONE (1)** example of authority that is inventorying and monitoring biodiversity and elaborate on why they are doing it. (6 marks)
- (b) Suppose there is still a lack of information on the habitat features and behaviour of proboscis monkey (*Nasalis larvatus*) or the long nose monkey in Borneo island, outline **FIVE (5)** methods or tools to be used to collect data on habitat features and behaviour of the population of proboscis monkey for management and conservation purposes. (10 marks)
- Q5** (a) One of the main reasons for conservation of biodiversity is food security.
- (i) Define food security by relating it to need and production (2 marks)
- (ii) Give **ONE (1)** example of event that is negatively affecting food security. Analyse how conservation of biodiversity especially of wild relative could be critical in ensuring food security. (8 marks)
- (b) Taking into consideration the development of Traditional and Complementary Medicine in Malaysia,
- (i) Under the current perception of the Malaysian public, determine the indications that shows that there is an increase in awareness among Malaysian about traditional and complementary medicine. (4 marks)
- (ii) In response to the traditional and complementary medicine development, analyse **TWO (2)** steps that Malaysia could implement to enhance further development of the documentation process of Traditional knowledge. (6 marks)

- END OF QUESTIONS -