



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : ENVIRONMENTAL HEALTH
COURSE CODE : BNA 31603
PROGRAMME CODE : BNA
EXAMINATION DATE : JUNE / JULY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

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

- Q1** (a) Define the 'enhanced' greenhouse effect. (3 marks)
- (b) Create pathways that shows the effects of climate change on human health which are often modulated by interactions with ecological processes, social conditions, and adaptive measures. (10 marks)
- (c) The impacts of climate change include warming temperatures, changes in precipitation, increases in the frequency or intensity of some extreme weather events, and rising sea levels. These impacts threaten our health by affecting the food we eat, the water we drink, the air we breathe, and the weather we experience. Discover **THREE (3)** groups of people that would be the most at risk from climate change. (6 marks)
- (d) Human activities have mobilized Earth elements and accelerated the biogeochemical cycles. Point out **THREE (3)** human activities that affected and disturb the biogeochemical cycle below:
(i) Nitrogen cycle
(ii) Phosphorus cycle (6 marks)
- Q2** (a) Describe each terminology used in the field of toxicology below:
(i) Poison
(ii) Toxic agent
(iii) Toxicity
(iv) Toxicant
(v) Toxin (5 marks)
- (b) Environmental stress can be defined as an undesirable transaction between the person and the environment. The demands made by environmental factors on us constitute the sources of environmental stress. To understand environmental stress better, you are required to revise **THREE (3)** human-environment relationships. (6 marks)
- (c) Point out **FOUR (4)** general types of environmental stressors. (8 marks)
- (d) Explain the major sources of air pollutions and propose actions to reduce air pollution. (6 marks)

- Q3** (a) Define environmental epidemiology. (2 marks)
- (b) Briefly explain **FIVE (5)** pollutants that have been the focus of most air quality regulations at the national level due to the chief concern from a health perspective (5 marks)
- (c) Most ionizing radiation comes from natural sources, though significant doses may be acquired through occupational or medical exposures. Humans are continuously exposed to radiation from many sources, both natural and artificial. Adverse effects may occur through damage to DNA, and include cancer risk, genetic risks and teratogenesis. Evaluate **FIVE (5)** man-made sources of radiation. (10 marks)
- (d) As an environmental health inspector which inspect food processing plant to control chemical hazard from sources, predict **FOUR (4)** clinical symptoms on human that expose to the etiologic agent in food. (8 marks)
- Q4** (a) Define the following terms:
(i) Emerging Zoonotic
(ii) Vector borne disease (4 marks)
- (b) Explain **FOUR (4)** emerging zoonoses and their conditions that may linked to their occurrence. (8 marks)
- (c) Several groups of pesticides are in use at present, these include some types of inorganic chemicals, organic chemicals and a variety of other substances. Investigate **FOUR (4)** major groups of pesticides that may give advantages and disadvantages to our life. (8 marks)
- (d) Copper and lead is a potential contaminant of tap water. Discover the mitigating measures to reduce the exposure to the contaminants in the tap water. (5 marks)

– END OF QUESTIONS –