

※ 注意：作答時，請於答案卷上標明作答之大題及其題號。

- (1) 環境中具有生物鏈增 (biomagnification) 的物質有多種，請舉一例，簡述它的生態影響和對人類健康的潛在意義。(15%)
- (2) 請舉二項曾經造成重大疾病事件的環境污染物。請指出污染物是什麼？在什麼地方造成重大疾病事件？主要病名或健康問題是什麼？(10%)
- (3) 飲水氯化 (chlorination) 是去除水中細菌、防止輸水途中污染滋生的措施，但近年來的研究也引起健康疑慮。是為什麼？(10%)
- (4) Please choose one of the five terms in each question (2 points each question): (10%)
- (a) The disease of _____ is NOT transmitted by mosquitoes.
(A) Malaria (B) Dengue fever (C) Yellow fever (D) Tuberculosis
(E) Japanese encephalitis
- (b) _____ represents a **nonliving** source of pathogens that is able to infect large numbers of individuals.
(A) Vector (B) Vehicle (C) Keeper (D) Reservoir (E) Carrier
- (c) _____ describes that a pollutant is released from a source.
(A) Concussion (B) Diffusion (C) Emulsion (D) Emission (E) Perfusion
- (d) Many carcinogens require _____ for their actions, such as forming epoxide intermediates during metabolism.
(A) Bioconcentration (B) Biomagnification (C) Bioactivation
(D) Bioremediation (E) Bioaccumulation
- (e) _____ is a common method to eliminate or minimize exposure to the hazard by introducing large amounts of air into a workplace.
(A) Disposition (B) Deposition (C) Coagulation (D) Aspiration
(E) Ventilation
- (5) What are persistent organic pollutants (POPs) ? What are the reasons about why a POP is usually more persistent in soil than in water? (15%)
- (6) Please list five examples of non-occupational exposure to ionization radiation and non-ionization radiation. (10%)
- (7) What are hospital waste and infection waste ? List the suitable management and treatment methods for these wastes ? (15%)
- (8) What is health risk assessment ? List the uncertainties for health risk assessment. (15%)