

- I. Please choose ONE most appropriate answer for each question (30%)
1. The followings are notable examples of nondegradable waste except (a) wastes from petroleum refining (b) DDT (c) phenol (d) the salts of heavy metals
 2. ____ are a class of compounds that might be formed as a result of drinking water disinfection. (a) Aldehydes (b) Trihalomethanes (c) Haloacetic acids (d) All of the above.
 3. Which one of the followings cannot cause eutrophication? (a) detergents (b) fertilizers (c) antibiotics (d) animal waste
 4. Minimizing the production of hazardous waste NOT included (a) solidification (b) segregating waste (c) eliminating raw materials (d) changing manufacturing process
 5. Which of the following statement is not true? (a) CERCLA stands for Comprehensive Environmental Response, Compensation, and Liability Act (b) NPL stands for National Priorities List (c) RCRA stands for Resource Conservation and Recovery Act (d) USNRC stands for United States Nuclear Regulatory Committee
 6. The following agents can contribute to indoor air pollution, with the exception of (1) Carbon Dioxide (2) Formaldehyde (3) Asbestos (4) PCB's
 7. All of the following except ____ are components of photochemical air pollution (1) Ozone (2) Sulfur dioxide (3) Hydrocarbons (4) Oxides of Nitrogen
 8. The three barriers between inner and outer environment except (1) skin (2) GI tract (3) Liver (4) Lung
 9. Which of the following statement is true? (1) $LD50 > ED50 > TD50$ (2) $ED50 > TD50 > LD50$ (3) $LD50 > TD50 > ED50$
 10. ____ is not the category of carcinogenesis (1) bioactivation (2) initiation (3) promotion (4) progression
- II. Please define the following term: (15%)
1. fugitive source
 2. secondary pollutants
 3. mobile source
 4. PM_{2.5}
 5. photochemical smog
- III. For Indoor Air Quality, please describe the sources, possible health effect and control method for the following pollutants. (30%)
1. NO_x
 2. mold
 3. VOCs
 4. O₃
 5. CO₂
- IV. Please write down four kinds of disinfectants applied in drinking water and its advantages and disadvantages (17%)
- V. Hazardous waste is characterized if they exhibit four properties. What are they? (8 %)