國立成功大學

114學年度碩士班招生考試試題

編　號：199

系　所：環境醫學研究所

科　目：環境衛生

日　期：0211

節　次：第 2 節

注　意：1.不可使用計算機
2.請於答案卷(卡)作答，於試題上作答，不予計分。

1. Please give five diseases and its causative agents which transmitted through contaminated drinking water (5%), and then give three methods to disinfect the contaminated drinking water (10%).

2. What gases were classified as greenhouse gases? (5 %) Explain the action mechanism of greenhouse gases to influence the temperature of atmosphere. (5%)

3. Please define the "POPs"? (7%) And list eight chemicals which had been assigned as POPs according to Stockholm Convention. (8%)

4. Please define the following terms (10%, 2% for each).

   A. Risk
   B. Intake
   C. Uptake
   D. Internal dose
   E. Biologically effective dose

5. What is the difference between toxicants and toxins? (10%)

6. A coal fire plant uses sulfur coal that emits 0.06 ppm of sulfur dioxide into the atmosphere; please write the chemical reaction equation for sulfur during combustion to form sulfur dioxide. (5%). The ambient air temperature and pressure are 27 °C and 1 atm, respectively. What is the emitted sulfur dioxide concentration in $\mu g/m^3$? (10%)

7. 電子電器設備廢棄物處理不當會對環境會造成怎樣的危害? (4%) 請舉出三項廢電子電器、廢資訊物品處理廠（場）應符合的規定? (6%)

8. Figure 1 shows the Large to small droplet (LS) exposure ratio for different horizontal distances when coughing and talking. List three points we can conclude from the figure. (15%)

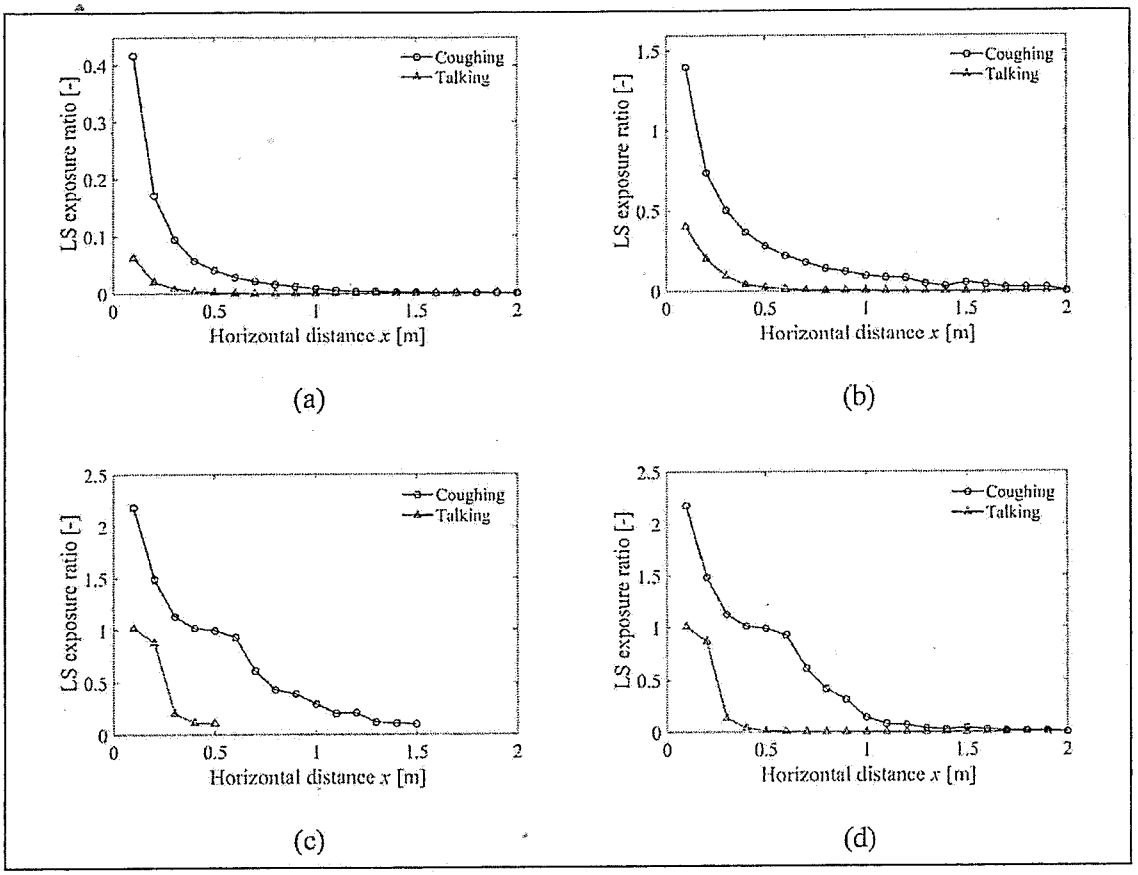

Fig. 1. LS ratio for (a) < 50 μm; (b) 50–100 μm; (c) > 100 μm (c) 0.1–0.5 m for talking and 0.1–1.5 m for coughing); (d) all sizes of droplets. Note: different vertical axis ranges are used. (Chen et al., 2020)