

※ 考生請注意：本試題不可使用計算機。 請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. Please define the primary standards and secondary standards of tap water quality standard ? (8%) Please point out the following items which belong to primary standards or secondary standards ? (8%)
 - (a) Total Bacterial Count (b) Odor (c) Arsenic (d) Fluoride
 - (e) Iron (f) Phenol (g) Total hardness (h) Aluminum
2. Please define the “POPs”? (6%) And list eight chemicals which had been assigned as POPs according to Stockholm Convention. (8%)
3. Please describe the major criteria to show the salient design and operation features of sanitary landfill for disposal of municipal solid waste (10%).
4. Please describe the three major methods for the exposure assessment of certain chemical for certain population. (10%)
5. Please describe the formation and effects of acid rain (9%). List two methods for preventing acid rain (6%)?
6. In the event of dust storm, calculate PM2.5 and PM10 ($\mu\text{g}/\text{m}^3$) according to Figure 1 (10%)? Which size bin has the largest number concentration, but the lowest mass concentration (5%)?

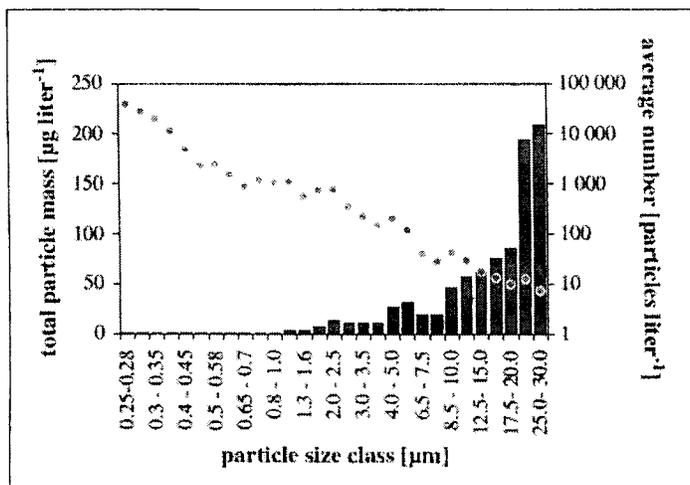


Figure 1. Average number of particles (dots) and mass (bars) during the event of a dust storm (Hoffmann et al., 2008).

7. What is Tuberculosis (5%), how does it spread from person to person (5%)?
8. What is the main reason for global climate change and its' related health effects (10%)?