

以下為選擇題，每題五分，請作答於試卷內之「選擇題作答區」

- Which two statements about carbon monoxide (CO) are not true? (2 correct answers)
 - CO has high affinity towards hemoglobin and reduces blood oxygen carrying capacity
 - CO is a principally a primary air pollutant
 - CO is grey in color
 - CO is the cause of acid rain
 - CO can be emitted from car (incomplete combustion)
- LD₅₀ is used for measuring toxicity of a compound.

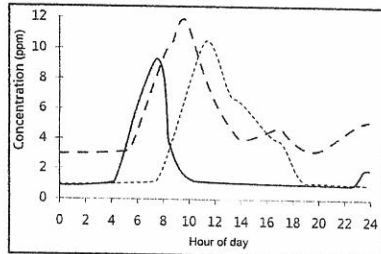
(part I)

If compound A has LD₅₀ = 5 mg/L and compound B has LD₅₀ = 20 ng/L, which compound (A or B) is more toxic?

(part II)

What are the problems of this method? (2 correct answers)

 - It neglects the long term (chronic) effect
 - It neglects the synergistic effect with other toxins
 - It is not as accurate as LC₅₀
 - It can only be tested on the fish.
 - It can only be tested on mice.
- Which of the following is a non-conventional energy sources?
 - Coal
 - Petroleum
 - Natural gas
 - Hydrogen
- Which resource is used to produce nuclear energy?
 - Aluminum
 - Bauxite
 - Uranium
 - Potash
- Waste is considered hazardous because of its:
 - Quantity
 - Physical characteristics
 - Chemical /infectious characteristics
 - All of the above
 - None of the above
- The most undesirable plume dispersion pattern is
 - Fanning
 - Coning
 - Fumigation
 - Lofting
- This is the concentration profile for NO, NO₂ and O₃. Which line most likely represents NO₂ concentrations throughout the day in Taipei city?
 - _____
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第 8 至 10 題為簡答及計算題，每題五分，請作答於試卷內之「非選擇題作答區」

- In a clean river environment (not heavily polluted), will compound X (pKa = 9.5) exist in its deprotonated or protonated form? Please explain.
- Contaminant X undergoes first order degradation in the aqueous environment, having degradation constant of 0.1 per second and initial concentration of 5 mg/L. What is the half life of this contaminant X?
- How is the "photochemical smog" formed? (What are the essential elements in forming the photochemical smog?)

11. 繪製傳統快砂濾淨水場之處理流程，每一階段之控制係數與水質參數為何?(10%)
12. (a) 定義“A-weighted sound level”? (b) 定義 “phon”? (10%)
13. 說明進行風險評估之四步驟及詳細內容。(10%)
14. 假如你在進行一項開發計畫之環境影響評估，你如何就重大影響要項進行環境衝擊影響評估及描述。(10%)
15. 討論河川污染之來源，如何量度河川污染，如何進行河川污染整治。(10%)

