

## 國立臺北科技大學

## 九十五學年度環境規劃與管理研究所碩士在職專班入學考試

## 環境學(以環境工程與環境科學兩大部分為主) 試題

填准考證號碼

第一頁 共一頁

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**注意事項：**

1. 本試題共【四大】題，每大題 25 分，共 100 分。
2. 請按順序標明題號作答，不必抄題。
3. 全部答案均須答在試卷答案欄內，否則不予計分。

## 1. 解釋名詞 (每題 5 分)

- a. 綠色資本(Natural Capital)
- b. 生命週期評估(Life Cycle Assessment)
- c. 京都機制(Kyoto Mechanism)
- d. 涵容/或承載能力(Assimilative/Carrying Capacity)
- e. BOO 與 BOT

## 2. 簡答題(每題 5 分)

- a. 何謂焚化處理的“3T”?
- b. 試述混凝(coagulation)與膠凝(flocculation)之差別。
- c. 試寫出達西定律(Darcy's Law)的方程式(標示每個參數的意義)。
- d. 試寫出評估 PSI(污染物標準指數)的污染物。
- e. 何謂高斯煙柱模型(Gaussian Plume Model)?

## 3. 試以中文說明以下短文的含義。

Corporations in North America, Europe, Japan, and in most newly industrializing nations are embracing environmental protection as part of their international competitive strategies. For many firms, the shift to proactive environmental management is driven by pressures from governments, customers, employees, and competitors. Both consumers and investors are beginning to see more clearly the relationship between business performance and environmental quality. The trend toward proactive environmental management is being accelerated by public pressures on governments almost everywhere to assure a cleaner environment. Government regulations have become more stringent, legal liabilities for environmental damage have become more burdensome, and customers have become more demanding. But more importantly, there is growing evidence that firms that adopt proactive environmental management strategies become more efficient and competitive. In many countries, the public has become more vocal in demanding responsible environmental performance as incomes rise and education spreads. Calls for responsible corporate behavior are coming from investors, insurers, environmental interest groups, financial institutions, and international trading partners.

4. 一條流量為  $5.0 \text{ m}^3/\text{s}$  且污染濃度為  $10.0 \text{ mg/L}$  的受污染河流，注入到一個  $10 \times 10^6 \text{ m}^3$  的湖泊(見附圖)。另湖邊有有一工廠，也將具同樣污染物的廢水，以濃度  $100 \text{ mg/L}$ ，流量  $0.5 \text{ m}^3/\text{s}$  排入湖中。河流與下水道廢污的反應(衰減)係數為  $0.2/\text{天}$ 。假設污染物在湖中完全混合，並且假定湖中沒有蒸發與其他之損失或增加，試求湖在穩定狀態(steady state) 時的濃度。

