國立成功大學 107 學年度碩士班招生考試試題

編號: 308

所:環境醫學研究所

考試科目:環境化學

考試日期:0206,節次:3

第1頁,共1頁

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\•/	化工法沙车 十分的工司 布田 针目棒。	一般が女子を下げる	, 1/2 to 30/1/20 (M/C) 1 1 1 1 1 1 1 1 1	
•X•		・ 女月 タン・ローンパンローレー・リー・ロー	,於本試題紙上作答者,不予計分	
/• \	考生請注意:本試題不可使用計算機。	• • • • • • • • • • • • • • • • • • • •		

- 1. Give the chemical structure and describe the usage of the following chemicals in the industry. (20%, 4% for each)
 - (a) DEHP;
 - (b) Bis-phenol A;
 - (c) hexabromocyclododecanes (HBCD);
 - (d) 2,3,7,8-tetrachlorodibenzo-p-dioxins;
 - (e) 1,3-hexachlorobutadien
- 2. Please explain the following terms. (20%, 4% for each)
 - (a) Green house effect;
 - (b) Osmotic pressure;
 - (c) Beer's Law;
 - (d) Raoult's Law;
 - (e) Breakpoint Chlorination
- 3. What evidences had been stemmed to confirm that iron and manganese gain entrance to water supplies through changes produced in environmental conditions as results of biological reactions? (16%)
- 4. Please describe the nitrogen cycle in the ecosystem and describe the role of organism in the nitrogen cycle. (15%)
- 5. The incineration becomes a principal method for treatment of municipal solid waste in Taiwan. Please use reactive equation to describe the formation mechanisms of dioxins during the combustion of municipal solid waste. (15%)
- 6. Please describe the formation mechanism of photochemical smog. (14%)