

※ 考生請注意：本試題 可 不可 使用計算機

Part I : 50 分

1. 憂鬱症(Depression)的分類為何？其治療藥物的選擇為何？請說明各藥物的作用機制及可能產生之副作用。(10%)
2. 說明下列藥物之作用機轉及臨床用途。(10%)
 - (1) Fenofibrate (2%)
 - (2) Celecoxib (2%)
 - (3) Mithimazole (2%)
 - (4) Clomiphene (2%)
 - (5) Buspirone (2%)
3. 請描述活化組織胺(Histamine) H1 及 H2 受體產生作用所經之訊息傳遞路徑，並各列舉一種 H1 及 H2 抗組織胺(Antihistamine)藥物，說明其藥理作用及臨床用途。(10%)
4. 下列藥物均可用於治療癌症，請說明其臨床用途、作用機制及可能產生之副作用。(10%)
 - (1) Cisplatin (2%)
 - (2) Daunorubicin (2%)
 - (3) Tamoxifen (2%)
 - (4) Imatinib (2%)
 - (5) Irinotecan (2%)
5. 帕金森氏症(Parkinson's disease)產生的原因為何？請描述其症狀，列舉三種作用機制不同的治療藥物並說明其藥理作用及可能產生之副作用。(10%)

Part II : 50 分

1. Arachidonic acid metabolites can be formed from 4 different pathways. Give ONE example for each **enzymic** pathway, name the major enzymes involved, and the physiological functions involved. (9%)
Give an example of arachidonic acid metabolite that formed from free radicals and requiring no enzymic involvement. (1%)

(背面仍有題目,請繼續作答)

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2. What is cytochrome P450? Name the cytochrome P450 isozyme responsible for >50% of prescription drugs metabolized by the liver. Give two examples of drugs metabolized by this cytochrome P450 isozyme. (8%)
Give an example for cytochrome P450 inducer and inhibitor. (2%)

3. What is the clinical use, mechanism of action and side effects of the following drugs? (20%)
 - a. Erythropoietin (2.5%)
 - b. Granulocyte colony-stimulating factor (2.5%)
 - c. Interleukin-11 (2.5%)
 - d. Thrombopoietin (2.5%)
 - e. Nicorandil (2.5%)
 - f. Ivabradine (2.5%)
 - g. Ranolazine (2.5%)
 - h. Abciximab (2.5%)

4. Discuss the differences in mechanism of action between angiotensin- converting enzyme inhibitors and angiotensin II type 1 receptor antagonist. (10%)