

一、問答題：共 50 分

1. 請寫出目前對下列疾病的治療用藥，並說明其作用機轉(action mechanisms)。(30%)
 - (1) 焦慮或不安(anxiety)
 - (2) 甲狀腺機能亢進(hyperthyroidism)
 - (3) 麻醉引致之惡性高燒(malignant hyperthermia)
 - (4) 心臟衰竭(congestive heart failure; CHF)
 - (5) 老年性癡呆(dementia)的認知退化
 - (6) 前列腺肥大(benign prostatic hypertrophy; B.P.H)
2. 對於惡性腫瘤或癌症，目前常用的治療藥為何？請說明其作用機轉。(10%)
3. 運動員私自濫用的禁藥有那些？請說明其使用原因。(10%)

二、選擇題(請選擇一個最佳答案，每題二分，共 50 分)

1. Which of the following most directly describes the mechanism of action of digitalis?
 - (A) Stimulates production of cAMP.
 - (B) Decreases intracellular sodium concentration.
 - (C) Inhibits sodium-potassium ATPase.
 - (D) Decreases release of calcium from sarcoplasmic reticulum.
 - (E) Increase the intracellular level of ATP.
2. All of following respond to treatment with benzodiazepines EXCEPT:
 - (A) Tetanus.
 - (B) Schizophrenia.
 - (C) Epileptic seizure.
 - (D) Insomnia.
 - (E) Anxiety.
3. All of the following statements are correct EXCEPT:
 - (A) Phenytoin causes less sedation than phenobarbital.
 - (B) Phenytoin is not indicated for children under 5 years of age.
 - (C) Phenytoin is not effective for absence seizure.
 - (D) Ethosuximide is effective for status epilepsy.
 - (E) Diazepam is effective for status epilepsy.
4. Cinchonism is a syndrome associated with:
 - (A) Digitoxin.
 - (B) Phenytoin.
 - (C) Lidocaine.

(背面仍有題目,請繼續作答)

- (D) Propranolol.
(E) Quinidine.
5. The effect of a therapeutic dose of quinidine on the normal ECG includes:
(A) An initial lengthening of the PR interval followed by a shortening.
(B) An initial decrease in heart rate followed by an increase.
(C) A widening of the QRS complex.
(D) A shortening of the QT interval.
(E) An inversion of T wave.
6. The following limit the clinical usefulness of digitalis EXCEPT:
(A) Narrow margin of safety.
(B) Low potency.
(C) Variations in bioavailability.
(D) Tendency to produce arrhythmias.
(E) Patient-to-patient variability in sensitivity of the heart to digitalis.
7. All of the following contraindications are correctly matched with the therapeutic agents EXCEPT:
(A) Essential hypertension-Verapamil
(B) Heart failure-Verapamil.
(C) Atrioventricular (AV) block-Diltiazem.
(D) Cardiodepression-Felodipine.
(E) Advanced aortic stenosis-Nicardipine.
8. All of the following are side effects of nitrovasodilators EXCEPT:
(A) Hypotension.
(B) Reflex tachycardia.
(C) Headache.
(D) Lupuslike syndrome.
(E) Tolerance.
9. Which of the following drugs is the first choice for the treatment of complex partial seizure?
(A) Phenobarbital.
(B) Ethosuximide.
(C) Phenytoin.
(D) Valproic acid.
(E) Diazepam.

10. Which of the following statement is true?
- (A) Augmentation of GABA promotes seizure initiation.
 - (B) Barbiturates and benzodiazepines interact with GABA receptor/channel complex.
 - (C) GABA is an excitatory neurotransmitter in the CNS.
 - (D) Spike-wave discharges recorded on the EEG are associated with tonic-clonic seizures.
 - (E) During seizures extracellular potassium falls.
11. The drug of choice for absence seizures is:
- (A) Phenytoin.
 - (B) Carbamazepine.
 - (C) Phenobarbital.
 - (D) Ethosuximide.
 - (E) Primidone.
12. All of the following statements are correct EXCEPT
- (A) Atropine blocks cholinergic pathways in the striatum.
 - (B) Deprenyl inhibits monoamine oxidase B and increases dopamine levels in brain.
 - (C) Bromocriptine directly activates dopaminergic receptors.
 - (D) Amantadine inhibits the metabolism of L-dopa.
 - (E) Antimuscarinic agents are generally less efficacious than L-dopa in the treatment of Parkinson's disease.
13. Which of the following statements is CORRECT?
- (A) Chlorpromazine is useful adjunct to L-dopa therapy.
 - (B) Vitamin B6 increases the effectiveness of L-dopa.
 - (C) Administration of dopamine is an effective treatment of Parkinson's disease.
 - (D) L-Dopa-induced nausea and vomiting are reduced by carbidopa.
 - (E) Concomitant administration of L-dopa and monoamine oxidase inhibitor produce a hypotensive crisis.
14. Which of the following is not a common symptom of opiate withdrawal?
- (A) Convulsions
 - (B) Lacrimation and rhinorrhea
 - (C) Nausea and vomiting
 - (D) Abdominal cramps
 - (E) Insomnia
15. The problems of cocaine abuse are most similar to those of:
- (A) Heroin abuse.

- (B) Marihuana abuse.
(C) Amphetamine abuse.
(D) Alcoholism.
(E) Secobarbital abuse.
16. Which of the following is the most clinical use for amphetamine?
(A) Anxiolytic
(B) Hypnotic
(C) Anoretant
(D) Anti-epileptic
(E) Anti-psychotic
17. Ascites resulting from excessive alcohol intake is most likely caused by :
(A) Increased osmolarity of the blood.
(B) Increased blood uric acid concentrations.
(C) Increased magnesium excretion.
(D) Obstructed venous return.
(E) Increased blood lactate concentrations.
18. Which is considered the most suitable glucocorticoid in the treatment of septic shock?
(A) Cortisol.
(B) Prednisone.
(C) Prenisolone.
(D) Dexamethasone.
(E) Methylprenisolone.
19. Which compound is not an estrogen?
(A) 17β -estradiol.
(B) Estriol.
(C) Levonorgestrel.
(D) Diethylstilbestrol (DES)
(E) Estrone.
20. Gynecomastia may occur during treatment with all of the following EXCEPT:
(A) Flutamide
(B) Cimetidine.
(C) Finasteride.
(D) Spironolactone.
(E) Testosterone.

21. Antimetabolites frequently act to kill cells in which phase of the cell cycle?
- (A) M phase (mitotic phase).
 - (B) G₁ phase.
 - (C) S phase (DNA synthetic phase).
 - (D) G₂ phase.
 - (E) Phase nonspecific.
22. Which of the following diseases is potentially curable with combination chemotherapy even when both the liver and lung are involved by metastatic disease?
- (A) Breast cancer.
 - (B) Hodgkin's disease.
 - (C) Colon cancer.
 - (D) Non-small cell carcinoma of the lung.
 - (E) Stomach cancer.
23. The prevention of graft rejection by cyclosporin is attained by the following mechanism:
- (A) Inhibition of cytotoxic T-lymphocyte generation.
 - (B) Inhibition of graft cell proliferation.
 - (C) Selective enhancement of B-lymphocyte production of antibody.
 - (D) Inhibition of innate immune responses.
 - (E) Selective depletion of CD3-bearing T lymphocytes.
24. Which of the following β -lactams would be an appropriate agent to treat meningitis caused by a β -lactamase-producing *Haemophilus influenzae*?
- (A) Ampicillin.
 - (B) Cefazolin.
 - (C) Piperacillin.
 - (D) Cefotaxime.
 - (E) Cefoxitin.
25. Which of the following aminoglycosides is most resistant to inactivation by aminoglycoside-inactivating enzymes?
- (A) Streptomycin.
 - (B) Neomycin.
 - (C) Gentamicin.
 - (D) Amikacin.
 - (E) Tobramycin.