

※考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

**I. Select one optimal answer. (30 points total, 2 point each)**

- Which antibiotic would you suggest for pregnant women with urinary tract infection?
  - Ampicillin
  - Azithromycin
  - Co-trimoxazole
  - Levofloxacin
- The following tests are necessary to monitor amiodarone related adverse effects, except:
  - Chest x-ray and pulmonary function
  - Thyroid function
  - Liver function test
  - Heart ejection fraction
- Which agent is not recommended for hypertriglyceridemia?
  - Cholestyramine
  - Fenofibrate
  - Gemfibrozil
  - Niacin
- When counseling patient taking warfarin, which one of the following statements is wrong?
  - Do not take this medicine during pregnancy.
  - Blood test to monitor warfarin levels is necessary for preventing side effects.
  - It works best if daily intake of vitamin K is consistent.
  - You may bleed or bruise more easily.
- Which of the following correctly describes an age related physiologic alteration that affects the effects of medications in geriatric patients?
  - Altered gastrointestinal function leading to decreased drug absorption
  - Decrease in the body fat compartment
  - Decline in creatinine clearance with an increase in age
  - Increase in the water compartment
- When giving a  $\beta$ -blocker for hypertension to asthmatic patients whose asthma is well controlled on the combination of fluticasone and salmeterol, which of the following is most likely to occur?
  - The  $\beta$ -blocker might increase the effects of salmeterol on the heart, causing tachycardia.
  - The  $\beta$ -blocker might decrease the effects of fluticasone on mast cells, lymphocytes and eosinophils.

- C. The  $\beta$ -blocker might increase systemic absorption of fluticasone.  
D. The  $\beta$ -blocker might decrease the bronchodilator effects of salmeterol.
7. Which of the following drugs used for COPD has the greatest potential produce cardiac arrhythmias?
- A. High dose fluticasone + salmeterol combination product
  - B. Slow release oral theophylline.
  - C. Tiotropium inhaler
  - D. Ipratropium MDI
8. Which of the following would most likely cause insomnia in a patient with allergic rhinitis if taken in the evening or at bedtime?
- A. Diphenhydramine syrup
  - B. Fluticasone furoate nasal spray
  - C. Montelukast tablets
  - D. Pseudoephedrine tablets
9. Which of the following best describes appropriate pharmacologic therapy of a patient with H. pylori - positive peptic ulcer disease?
- A. Antacids + sucralfate
  - B. H<sub>2</sub> receptor antagonists + Bismuth salt
  - C. Proton pump inhibitor + antibiotics
  - D. Prostaglandin E<sub>1</sub> analogue + antibiotics
10. Which of the following is correct regarding to metformin use in type 2 diabetes?
- A. Causes weight gain in most patients
  - B. Contraindicated in female patient with serum creatinine (SCr)  $\geq$  1.4 mg/dl
  - C. Primarily works by increasing insulin secretion from functioning beta cells
  - D. Associated with increased risk of bone fractures
11. Which of the following drugs is least likely to cause hyperglycemia?
- A. ACE inhibitors
  - B. Corticosteroids
  - C. Diuretics
  - D. Nicotinic acid
12. Which drug is the first-line treatment for social anxiety disorder?
- A. Citalopram
  - B. Ethosuximide
  - C. Paroxetine
  - D. Zolpidem

13. Which of the following antineoplastic agents belongs to targeted therapy?
- A. Bevacizumab
  - B. Fluorouracil
  - C. Methotrexate
  - D. Oxaliplatin
14. Isotretinoin (0.5-1 mg/kg/day) is indicated for severe acne. How long is the usual duration of therapy, which will reach a cumulative dose of 120 mg/kg?
- A. 5 days
  - B. 5 weeks
  - C. 50 days
  - D. 5 months
15. Among the following topical corticosteroid preparations, which one is the least potent?
- A. Betamethasone valerate 0.1%
  - B. Clobetasol propionate 0.05%
  - C. Hydrocortison 0.5%
  - D. Triamcinolone 0.1%

**II. Matching: For the item in column A match with the elaboration(s) in column B. (15 points total, 1 point each)**

Column A

- 1. ALT
- 2. CD4 count
- 3. ECG
- 4. HDL
- 5. MIC
- 6. Cefazolin
- 7. Cisplatin
- 8. Desmopressin
- 9. Doxorubicin
- 10. Ezetimibe
- 11. Hydrochlorothiazide
- 12. Memantine
- 13. Ranitidine
- 14. Rivastigmine
- 15. Unfractionated heparin

Column B

- A. The protective lipoprotein for the occurrence of coronary heart disease
- B. The quantitative value to determine in vitro antibacterial activity
- C. An enzyme representing liver function
- D. A graphic recording of the electrical potentials by the heart
- E. Indicator for persons with HIV infection
- F. Used primarily in the diagnosis of seizures
- G. Used to monitor the response of HBV treatment
- H. Higher proportion of protein in its composition as compared to LDL
- I. The mainstay for prophylaxis in most surgical procedures
- J. Add to parenteral nutrition solutions to prevent catheter thrombosis.
- K. Blocks cholesterol absorption across the intestinal border to reduce cholesterol level.
- L. Oral tablet is indicated for nocturnal enuresis.
- M. Blood sugar may be raised in diabetic patients, and should be advised during consultation.
- N. For stress ulcer prophylaxis and is stable when admixed with two-in-one parenteral nutrition admixture.
- O. An anticoagulant
- P. A platinum analog with nephrotoxicity
- Q. An anthracycline with cardiac toxicity
- R. A cholinesterase inhibitor indicated for Alzheimer's disease
- S. A N-methyl-D-aspartate receptor indicated for Alzheimer's disease
- T. A proton pump inhibitor

**III. Fill the blank with proper answer. (40 points total, 2 points each)**

1. To manage ST-segment elevation myocardial infarction, early pharmacotherapy includes intranasal oxygen, sublingual (1), (2), an anticoagulant, and fibrinolysis. (3) is administered to patients with refractory angina as an analgesic.
2. Serum calcium concentrations higher than (4) mg/dl are considered to represent hypercalcemia. The cornerstone of initial treatment of severe hypercalcemia is volume expansion with (5) to increase natriuresis, or short-term therapy with (6) is an alternative agent to the reduction of serum calcium levels within 24 to 48 hours.
3. Streptococci is a common cause of infective endocarditis, high dose parenteral (7) or (8) for 4 weeks is recommended to treat uncomplicated, native-valve endocarditis.

4. The standard regimen for active tuberculosis for the first 2 months includes   (9)  ,   (10)  ,   (11)  , and   (12)  .   (13)   alone is a preferred drug for treating latent TB for 9 months.
5. For patients with concomitant infection of HIV and HBV, the recommended regimen is combination of   (14)   and   (15)   in Taiwan.
6.   (16)   is first-line therapy in most cases of attention deficit hyperactivity disorder, while   (17)   and guanfacine are second-line alternatives to the stimulants in children.
7. Sulfonyleureas are classified as first-generation and second-generation agents. In comparison of potency,   (18)   agents are higher.
8. When compounding parenteral nutrition solution, pharmacist should work under   (19)   to achieve sterile preparations. Usually,   (20)   should be used to clean the vials and outer packs of consumables before being introduced into the clean room.

#### IV. Questions (15 points total, 5 points each)

1. Explain what is beyond use date. How to establish the beyond use date for compounded sterile products.
2. Describe your experience in using medical literature.
3. How do you know about “雲端藥歷”？