

私立臺北醫學院 八十九學年度第 一 學期 期中 考試 (命 試) 題紙

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
醫三	藥 理 學		90 年 1 月 11 日 第 節		
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一、配合題 4 題 (2 分)

- () 1. aspirin
 () 2. oral anticoagulant
 () 3. hypochromic anemia
 () 4. thrombolytic agent

許準榕 老師

- A heparin
 B iron-deficient anemia
 C deferoxamine
 D warfarin
 E pernicious anemia
 F vitamin K
 G inhibit cyclooxygenase
 H urokinase
 J EDTA

選擇題 每題 1 分 (14 %)

曾素惠 老師

- () 1. Diuretics of Triamterene and Amiloride are different mechanism from (A) urea (B) furosemide (C) spironolactone (D) bumetanide, but have the same primary site of action.
- () 2. Furosemide (A) is a mitotic diuretic (B) is a high-ceiling diuretic (C) produce hyperkalemia (D) is a carbonic anhydrase inhibitor.
- () 3. Chlorothiazide (A) is aldosterone antagonist (B) acts on the proximal tubule (C) inhibits Na^+/Cl^- cotransport (D) might be menstrual irregularities problem.
- () 4. Acetazolamide is used in treatment of (A) Chemical intoxication (B) Pulmonary edema (C) Acute mountain sickness (D) reducing cerebral edema.
- () 5. Chlorohexidine is absorbed of the (A) DNA (B) RNA (C) cell membrane (D) cell wall of bacteria used for antiseptic purpose.
- () 6. Which one of the following statement is correct : (A) Alcohol - 10 % $\text{C}_2\text{H}_5\text{OH}$ (B) Povidone-iodine - 1 % I_2 (C) Hexachlorophene - 5 % conc. (D) 雙氧水 - 2 % H_2O_2 .
- () 7. (A) Phenol (B) Chloramine T (C) Mercuric chloride (D) Ethylene oxide, a colorless gas, may alkylates nucleic acid of bacteria.
- () 8. The P-glycoprotein is responsible for multidrug resistance in cancer cell, but (A) Vandesine, prazepam (B) Morphine, atropine (C) Verapamil, quinidine (D) Bleomycin, fluorouracil are able to inhibit transposition of the protein.
- () 9. Drug are correctly matched with a major adverse effect EXCEPT
 (A) prednisone : bone marrow suppression (B) Cyclophosphamide : hemorrhagic cystitis
 (C) Daunorubicin : cardiomyopathy (D) 5-fluorouracil : bone marrow depression.
- () 10. Drug are correctly matched with their mechanism of action EXCEPT
 (A) mercaptopurine : antimetabolite agent (B) lomustine : alkylating agent
 (C) dactinomycin : antimetabolite agent (D) vincristine : antimitotic agent.
- () 11. All of the following statements regarding doxorubicin are correct EXCEPT
 (A) it is a CCNS (cell cycle-nonspecific) agent (B) it intercalate with DNA
 (C) it can cause cardiotoxicity (D) it is one of combination drugs - MOPP.
- () 12. Teniposide, the anticancer agent, inhibits enzyme of (A) topoisomerase II (B) thymidylate synthetase (C) folate reductase (D) PRPP amidotransferase.

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- () 13. (A) Hydroxyurea (B) Prednisone (C) Asparaginase (D) Paclitaxel acts as a mitotic inhibitor, stabilizes microtubules in the polymerized form
- () 14. Strategies for hormone therapy of prostate carcinoma include inhibition of gonadotropin release by administration of estrogen or GnRH analogs: (A) Tamoxifen (B) Leuprolide (C) Melphalan (D) Flutamide, orchiectomy, and administration of antiandrogens.

(14 %)

蕭哲志 老師

- All of the following possess antiplatelet activity except:
 - PG I₂ (prostacyclin)
 - Iloprost
 - Thromboxane A₂ · Platelet-activating factor
 - Aspirin
- Which one of the following statements about eicosanoids is not true?
 - Either prostaglandin E₂ or F_{2α} have the activity to stimulate uterine contraction
 - PG E analog and Misoprostol have proved useful for the treatment of peptic ulcers.
 - Overproduction of leukotrienes leads to bronchoconstriction
 - PG E₁, PG E₂, and PG I₂ are not endogenous vasodilators.
- Sumatriptan
 - Selectively blocks 5-HT reuptake
 - Inhibits MAO A
 - It is an effective appetite suppressant
 - Activates 5-HT₁ receptor
- Which one of the following drugs blocks histamine receptors of the parietal cells, and inhibits gastric acid secretion?
 - Chlorpheniramine
 - Terfenadine
 - Ranitidine
 - Fexofenadine
- When patients with hepatic dysfunction, which one of the following antihistamine drugs induces the ventricular tachyarrhythmias?
 - Terfenadine
 - Chlorpheniramine
 - Cimetidine
 - Fexofenadine
- Which one of the following statements is not true?
 - The aspirin-like drugs have the gastric side effects include perforations, ulcerations and bleeds (PUB syndrome).
 - The developments of selective cyclooxygenase-1 (COX-1) inhibitors, has already demonstrated improved safety on gastric irritation in clinical treatment.
 - Meloxicam is a selective COX-2 inhibitor
 - Indomethacin is not a selective COX-2 inhibitor

私立臺北醫學院八十九學年度第一學期期中考試(試)題紙

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7. Which one of the following statements about kinins is **not true**?

- (A) Kinins are autacoids that act locally to induce pain, vasodilation and increased vascular permeability
- (B) There are two types of kinins as bradykinin (nonapeptide) and kallidin (lysyl-bradykinin)
- (C) The principal catabolizing enzyme is called kininase, and kininase I is known as angiotensin - converting enzyme
- (D) The receptors of kinins include B₁ and B₂ receptor

8. Which one of the following matches about drug treatments is **not true**?

- (A) vomiting---sumatriptan
- (B) depression---SSRI
- (C) schizophrenia---risperidone
- (D) Obesity---fenfluramine

9. The response mediated by H₂ receptors activation include:

- (A) Bronchoconstriction
- (B) Gastric acid secretion
- (C) Decreased force of ventricular contraction
- (D) Inhibition of norepinephrine release

10. Which one of the following statements about histamine is **not true**?

- (A) Synthesized from l-histidine
- (B) The major site of histamine storage and release is mast cell
- (C) The release of histamine from mast cells can be induced by d-tubocurarine, and this reaction is called "pseudoallergy"
- (D) The first-generation antihistamine drugs do not exhibit actions on other nonhistaminergic receptors

(11-13) Please choose the following gene products (a-f) being correctly matched to the questions:

- g. adenosine deaminase (ADA),
- h. CFTR (Cl⁻ channel),
- i. HS-thymidine kinase (TK),
- j. LDL receptor ,
- k. glucocerebrosidase,
- l. P53

() 11. which gene encoded-virus could improve SCID syndrome

() 12. which gene encoded-virus could improve cystic fibrosis

() 13. which gene encoded-virus could improve glioblastoma

() 14. Which one of the following statements about retrovirus is **not true**?

- (A) "psi" is a packaging signal
- (B) integration into host DNA
- (C) transfection requires cell division
- (D) no semi-random integration

私立臺北醫學院 89 學年度第 一 學期 期中 考試 (命題) 題紙

系級	科目	授課教師	考試日期	學號	姓名
醫三	藥理學	蔡妍菊	90年1月11日第 節		

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I. 選擇題：(每題 1.5 分，共 21 分)

- () 1. 下列有關抗生素和抗菌機轉的敘述，何者錯誤？
 (A) β -lactams - inhibit transpeptidase activity
 (B) gentamicin - binds to 30S rRNA to inhibit protein synthesis
 (C) vancomycin - inhibits 2 step of cell wall synthesis
 (D) trimethopim - inhibits dihydrofolate synthetase
- () 2. 下列有關抗藥菌的發生和藥物的組合，何者錯誤？
 (A) the oxygen-dependent system is absent - aminoglycosides
 (B) efflux of the drugs - tetracyclines
 (C) inactivating enzyme - sulfonamides
 (D) failure to metabolite drug - 5-flucytosine
- () 3. 下列感染疾病和第一選擇用藥的組合，何者錯誤？
 (A) *Listeria monocytogens* - ampicillin (B) *Clostridium difficile* - novobiocin
 (C) *Chlamydia psittaci* - doxycycline (D) *Legionella pneumophila* - erythromycin
- () 4. 下列有關 cephalosporins (CEs) 的敘述，何者錯誤？
 (A) cefoxitin (2nd) 是最有效於 *Bacteroids fragilis* 感染的 CEs
 (B) cefoperazone (3rd) 能用於腎功能不全者
 (C) cefepime (4th) 對 *Enterobacter* 產生的 β -lactamase 不穩定
 (D) cefamandole (2nd) 會有 disulfiram-like effect
- () 5. 下列抗生素用於孕婦會引起的毒性之敘述，何者錯誤？
 (A) aminoglycosides - hemolytic anemia
 (B) tetracyclines - limb abnormality
 (C) chloramphenicol - gray baby syndrome
 (D) amantadine - teratogenic effect
- () 6. 下列有關 tetracyclines 的敘述，何者正確？
 (A) minocycline 能進入 CNS 而有暈眩 (vertigo) 的副作用
 (B) chlortetracycline 發生抗藥菌時，可改用 oxytetracycline 治療
 (C) doxycycline 會有 phototoxicity 和引起 azotemia 的副作用
 (D) demeclocycline 可用於腎功能不全病患
- () 7. 下列有關 aminoglycosides 的敘述，何者正確？
 (A) 目前為治療 G(+) 桿菌嚴重感染的主要用藥
 (B) 因為 high polar, polyanionic 結構，所以口服吸收效果差
 (C) 可和 carbenicilline 製成混合劑，對綠膿桿菌有 synergic 效果
 (D) 會減少 Ach 分泌和降低 postsynaptic site 敏感度而造成肌肉鬆弛
- () 8. 下列 antifungal agents 的作用機轉，何者錯誤？
 (A) polyenes - bind to membrane ergosterol
 (B) azoles - decrease lanosterol and ergosterol production
 (C) terbinafine - inhibits squalene epoxidase
 (D) griseofulvin - inhibits fungal mitosis

私立臺北醫學院 89 學年度第 一 學期 期中 考試 (命 題) 題紙

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
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- () 9. 下列有關 antiviral agents 的敘述，何者錯誤？
 (A) acyclovir 須先經 viral kinase 作用始能干擾 HSV 病毒
 (B) ganciclovir 可用於 AIDS 病患的 CMV(巨細胞病毒)感染
 (C) vidarabine 用於嬰幼兒 RSV 感染，也可 IV 用於 Lassa fever
 (D) amantadine 用於 influenza A 和 rubella 的感染
- () 10. 下列有關 antiretroviral agents 的敘述，何者錯誤？
 (A) zidovudine - 用於治療 HIV-encephalopathy 和預防垂直感染
 (B) indinavir - 是 Cyto. P450 CPY3A4 的 inhibitor 和 substrate
 (C) lamivudine - 用於治療 advanced HIV disease
 (D) ritonavir - 易發生腎石(nephrolithiasis)，服藥時須多喝水
- () 11. 下列有關 anti-mycobacterium agents 的敘述，何者錯誤？
 (A) rifampin - 會使糞便和尿液出現 orange-red color
 (B) ethionamide - 會抑制尿酸排除造成痛風惡化
 (C) aminosalicylic acid - 會抑制 isoniazide 的 acetylation
 (D) clofazimine - 會引起皮膚的 red discoloration
- () 12. 下列有關 antifungal agents 的敘述，何者正確？
 (A) azoles 中對麴菌種(Aspergillus)有效的是 itraconazole
 (B) amphotericin B 和 ketoconazole 有 synergism 效果
 (C) griseofulvin 會抑制 cytochrome P450 活性
 (D) flucytosine 和 amphotericin B 為 contraindicated
- () 13. 下列有關 urinary tract infection 用藥的敘述，何者正確？
 (A) sulfonamides 主於肝臟進行 N₄-deacetylation 代謝
 (B) methenamine 可和 sulfonamides 併用於 UTI
 (C) nitrofurantoin 會出現 brown urine 現象
 (D) ciprofloxacin 有效於急性尿道症候群(acute urethral syndrome)
- () 14. 下述檢測尿液中 pyrroles 含量變化和疾病的組合，何者有誤？
 (A) acute intermittent porphyria - δ -ALA(+), PBG(+), URO($\pm$), COPRO(+)
 (B) acute hepatitis - δ -ALA(+), COPRO(+)
 (C) acute alcoholism - URO($\pm$), COPRO(+)
 (D) lead poisoning - δ -ALA(+), URO($\pm$), COPRO(+)

* δ -ALA: δ -aminolevulinic acid PBG: porphobilinogen URO: uroporphyrin COPRO: coproporphyrin

II. 配合題: (每題 1 分，共 5 分)

- () 1. 口服不被吸收，受腸道細菌分解釋出活性產物，而可治療慢性發炎性腸道疾病(eg. Crohn's disease)
- () 2. 鉛中毒的初步檢測是測量血中的何者
- () 3. 是含高鈉的育黴素製劑，會引起 Na⁺ overload 和 hypokalemia 副作用
- () 4. 會抑制 cytochrome oxidase electro-transport system 而導致發生 cytotoxic hypoxia 者
- () 5. 中毒時會引起 nephrotoxicity, acidosis, hypocalcemia, CNS depression

answers: (A) carbenicillin (B) cefoperazone (C) coproporphyrin
 (D) protoporphyrin (E) carbon monoxide (F) ethylene glycol
 (G) neomycin (H) sulfasalazine (I) cyanide

私立臺北醫學院 八十九學年度第一學期 期中 考試 (命 題紙)

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Choose one most appropriate answer:

林松洲 老師

- () 1. Which one of the following immunosuppressive agents has the minimum bone marrow toxicity?
 (A) Cyclophosphamide, (B) Cyclosporines, (C) Immuran, (D) OKT-3
- () 2. Which one of the following immunosuppressive agents is a kind of folic acid antagonist?
 (A) FK 506, (B) Decaris, (C) Methotrexate, (D) Alkyloxan
- () 3. The most often occurred side effect of cyclosporine is
 (A) nephrotoxicity, (B) hepatotoxicity, (C) predisposition to opportunistic viral infections, (D) hirsutism
- () 4. Which one of the following viral enzymes could firstly lead the anti-AIDS drug-AZT into AZT monophosphate?
 (A) DNA polymerase, (B) Thymidine kinase, (C) Thymidylate kinase, (D) HIV reverse transcriptase
- () 5. Which one of the following immunosuppressive drugs is not correctly matched to its toxicity?
 (A) Cyclosporine: bone marrow depression
 (B) Corticosteroids: electrolyte imbalance
 (C) Azathioprine: predisposition to opportunistic infections
 (D) Cyclophosphamide: myelosuppression
- () 6. (A) Hydrocortisone, (B) Dexamethasone, (C) Fludrocortisone, (D) Methylprednisolone has the highest glucocorticoid activity.
- () 7. (A) Hydrocortisone, (B) Dexamethasone, (C) Fludrocortisone, (D) Methylprednisolone has the highest mineralocorticoid activity.
- () 8. (A) Hydrocortisone, (B) Dexamethasone, (C) Fludrocortisone, (D) Methylprednisolone has the longest duration of sodium-retaining action.
- () 9. Metyrapone may
 (A) increase 11- β -hydroxylase, (B) inhibit 11- β -hydroxylase,
 (C) increase 17- β -hydroxylase, (D) inhibit 17- β -hydroxylase,
- () 10. (A) Monoiodotyrosine, (B) Diiodotyrosine, (C) T₃, (D) T₄ is the most important and most effective thyroidal hormone.
- () 11. (A) TRH, (B) TSH, (C) T₃, (D) T₄ may decrease in hyperthyroidism patients.
- () 12. Vascularity, myxedema and hyperplasia of thyroid gland may be induced by (A) hyperthyroidism, (B) hypersecretion of TSH, (C) hyposecretion of TSH, (D) hyposecretion of TRH
- () 13. (A) Provera, (B) Premarin, (C) Clomiphene, (D) Estradiol is often used to advance or delay the menstruation cycle.
- () 14. Zoladex depot is often used to treat endometriosis by S.C. injection, q 28 days, its safe therapeutic course should not over (A) 3 months, (B) 4 months, (C) 5 months (D) 6 months
- () 15. The maximum safety dose of clomiphene is (A) 50 mg, (B) 100 mg, (C) 150 mg, (A) 200 mg
- () 16. Clomiphene should be administrated at the (A) 1~5 days (B) 5~9 days (C) 7~11 days (D) 9~13 days of menstruation cycle.
- () 17. Which one of the following drugs should be used in the treatment of hyperammonemia?
 (A) Proheparum, (B) Essential, (C) Silymarin, (D) Eucol
- () 18. In severe hepatitis, in order to obtain the maximum hepatotherapeutic effect, the daily dose of silymarin should be prescribed as (A) 105mg, (B) 210mg, (C) 420mg, (D) 560mg
- () 19. The main adverse effect of lamivudine is (A) rhabdomyolysis, (B) drowsiness, (C) hypersensitive reaction, (D) renal damage

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Choose the most appropriate answer: (5%)

柯文彬 老師

- () 1. The β_2 -adrenergic agonist, A) metaproterenol B) albuterol C) terbutaline D) salmeterol is NOT effective in treating acute exacerbations of asthma.
- () 2. Monitoring serum concentration of A) cromolyn sodium B) glucocorticosteroid C) theophylline D) ipratropium bromide is necessary for any asthmatics.
- () 3. The glucocorticoid-binding domain is located at A) carboxy-terminus B) amino-terminus C) middle part D) "two-finger" structure region of glucocorticoid receptor.
- () 4. A) Histamine B) Leukotrienes C) Prostaglandins D) Cytokines may be released after triggering by allergen within 5 mins.
- () 5. Cromolyn sodium and Nedocromil sodium are active by A) inhalation B) oral administration C) subcutaneous injection D) any of the above.

選擇題(每題 1 分)(14%)

周敦穗 老師

- () 1. 下列那種制酸劑常會影響體液之酸鹼平衡? (A) Aluminum hydroxide (B) Magnesium hydroxide (C) Sodium bicarbonate (D) Calcium carbonate
- () 2. 下列藥物中，何者抑制胃酸分泌的作用最強? (A) Pirenzepine (B) Ranitidine (C) Misoprostol (D) Sucralfate (E) Proglumide
- () 3. 下列何者沒有抑制胃酸分泌的作用? (A) Pirenzepine (B) Ranitidine (C) Omeprazole (D) Sucralfate (E) Proglumide
- () 4. 下列何者兼具止吐及促進腸胃蠕動的作用? (A) Cisapride (B) Metoclopramide (C) Scopolamine (D) Ondansetron (E) Bethanechol
- () 5. 下列何者不屬於刺激性瀉劑(stimulant cathartics)? (A) Psyllium (B) Danthron (C) Senna (D) Castor oil (E) Bisacodyl
- () 6. 下列何種受體與引起嘔吐的刺激無關? (A) $5HT_2$ (B) H_1 (C) D_2 (D) M_1 (E) 以上皆有關
- () 7. 下列何者的降血糖作用與 Insulin 無關? (A) Troglitazone (B) Chlorpropamide (C) Glimepiride (D) Metformin (E) 以上皆非
- () 8. 下列降血糖藥中何者最易引起低血糖症，不適合老年人使用? (A) Glipizide (B) Acetohexamide (C) Chlorpropamide (D) Tobutamide
- () 9. 下列何者的降血糖作用最快，duration 最短? (A) Ultralente (B) Semilente (C) NPH (Isophane) (D) Lente
- () 10. 下列何者是 α -glucosidase inhibitor，有抑制飯後血糖升高的作用? (A) Metformin (B) Troglitazone (C) Acarbose (D) Tolazamide
- () 11. 下列何者是 Chlorpropamide 在 β cell 的作用機轉? (A) c-AMP $\uparrow$ (B) ATP $\uparrow$ (C) open K^+ channel (D) close Ca^{++} channel (E) 以上皆非
- () 12. 下列何者可用來治療前列腺癌症(prostate cancer)? (A) GnRH (B) GHRH (C) GnRH analogs (D) CRH (E) Somatostatin
- () 13. Vasopressin 治療尿崩症(Diabetes insipidus)的作用機轉是經由 (A) V_1 , $IP_3\uparrow$ (B) V_2 , $IP_3\uparrow$ (C) V_1 , c-AMP $\uparrow$ (D) V_2 , c-AMP $\uparrow$
- () 14. 下列何者只在懷孕末期才有收縮子宮的作用? (A) Oxytocin (B) Prostaglandins (C) Ergot (D) Mifepristone