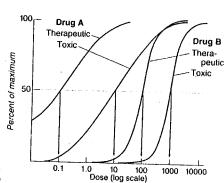
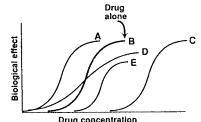
注意: 請將答案寫在答案紙上

Choose one of the best answer (2% for each question).

- 1. Which one of the following statements is correct?
  - (A) Weak bases are absorbed efficiently across the epithelial cells of the stomach.
  - (B) If the Vd for a drug is small, most of the drug is in the extraplasmic space.
  - (C) Drugs showing large Vd can be efficiently removed by dialysis of the plasma.
  - (D) The greater the efficacy, the greater the potency of a drug.
  - (E) In the presence of a full agonist, a partial agonist acts like a competitive inhibitor.
- 2. Two drugs, "A" and "B," were studied in a large group of patients; the percentage of the population showing therapeutic and toxic effects were graphed. Based on the graph, it may be concluded that:
  - (A) Drug B is less effective than drug A
  - (B) Drug A is safer than drug B
  - (C) The therapeutic index of drug B is 100.
  - (D) The therapeutic index of drug A is 100.
  - (E) The two drugs act on the same receptors.



- 3. The graded dose-response curve for a drug is shown as curve B in the graph. Which curve best describes the response expected in the presence of a compective antagonist?
  - (A) Curve A.
  - (B) Curve B.
  - (C) Curve C.
  - (D) Curve D.
  - (E) Curve E.



- 4. 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) Increases the intracellular level of ATP

#### 图 學年度 國立成功大學 等沒沒個別所 第 沒 沒 前題 共 10 頁 第 工 頁

- 5. Which of the following statements is correct?
  - (A) Digitoxin is more widely used than digoxin because it has a shoeter half-life.
  - (B) Serum levels of digoxin can be increased by quinidine.
  - (C) Digitoxin is used in patients with Wolff-Parkinson-White syndrome.
  - (D) Quabain is given by oral administration.
  - (E) Digoxin can be metabolized to digitoxin in liver.
- 6. All of the following pair correctly match a drug with its action except?
  - (A) Qunidine: Blocks sodium channels
  - (B) Bretylium : Blocks potassium channels
  - (C) Verapamil: Blocks calcium channels
  - (D) Propranolol : Blocks β-adrenergic receptors
  - (E) Procainamide: Blocks potassium channels
- 7. Which one of the following statement is incorrect?
  - (A) Qunidine is well absorbed and with high plasma protein binding properties.
  - (B) The major toxic effect of qunidine is lupus-erythematosus like syndrome.
  - (C) Disopyramide possesses a strong anticholinergic effect.
  - (D) Bretylium possesses an adrenergic neuron blocking action.
  - (E) Digitalis can increase the vagal tone on AV node.
- 8. Which of the following is not a complication of therapy with thiazide diuretics?
  - (A) Hypercalciuria
  - (B) Hyponatremia
  - (C) Hypokalemia
  - (D) Hyperuricemia
  - (E) Metabolic alkalosis
- 9. The antianginal effect of propranolol may be attributed to all of the following except ?
  - (A) Increases end-diastolic ventricular volume
  - (B) Decreases systolic fiber tension
  - (C) Block of exercise-induced tachycardia
  - (D) Decreases cardiac force
  - (E) Reduces resting heart rate
- 10. Captopril and enalapril do all of the following except?
  - (A) Increase renin concentration in the blood

## 85 學年度 國立成功大學 英观义的乳 并 建 学 試題 共 10 頁 領土班招生考試 茅观义的乳 所 華 程 学 試題 第 3 頁

- (B) Inhibit angiotensin converting enzyme
- (C) Decrease angiotensin II concentration in the blood
- (D) Competitively block angiotensin II at its receptor
- (E) Increase sodium and decrease potassium in the urine
- 11. Which of the following is FM-2?
  - (A) Diazepam
  - (B) Triazolam
  - (C) Flunitrazepam
  - (D) Fluazepam
  - (E) Oxazepam
- 12. All of the following respond to treatment with benzodiazepines except?
  - (A) Tetanus
  - (B) Schizophrenia
  - (C) Epileptic seizure
  - (D) Insomnia
  - (E) Anxiety
- 13. 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.
- 14. Which of the following statement is incorrect?
  - (A) Parkinsonian patients are characterized by increased the ration of dopaminergic/cholinergic activity in the striatum
  - (B) Overtreatment of Parkinson's disease can result in the syndromes of psychosis.
  - (C) Diets rich in protein may decreases the effect of L-dopa.
  - (D) Dyskinesia is the most important side effect of L-dopa.
  - (E) Treatment with deprenyl can delay the onset of Parkinsonian symptoms.

# 图 學年度 國立成功大學 基理学研究所 茅 選 学 試題 第 4 頁 第 4 頁

- 15. Which of the following is a therapeutic application of the lithium salt (LiCO<sub>3</sub>)?
  - (A) Mania
  - (B) Insomnia
  - (C) Hypertension
  - (D) Motion sickness
  - (E) Diarrhes
- 16. Which of the following is a short-acting benzodiazepines?
  - (A) Diazepam
  - (B) Alprazolam
  - (C) Chlorazepate
  - (D) Nitrazepam
  - (E) Triazolam
- 17. Which of the following is not pharmacological action of amphetamine?
  - (A) Decreases fatigue and sleep
  - (B) Increases appetite
  - (C) Increases respiration rate
  - (D) Increases systolic and diastolic blood presure
  - (E) Decreases heart rate
- 18. Hormones that are synthesized in the hypothalamus include all of the following except?
  - (A) Corticotropin-releasing hormone
  - (B) Luteinizing hormone
  - (C) Oxytocin
  - (D) Thyrotropin-releasing hormone
  - (E) Vasopressin
- 19. Actions of thyroxine include all of the following except?
  - (A) Decreases glomerular filtration rate
  - (B) Stimulation of oxygen consumption
  - (C) Acceleration of cardiac rate
  - (D) Increases appetite
  - (E) Fine tremor of skeletal muscles

### 85 學年度國立成功大學 花光学研究所 李祖学 試題 共 10頁項士班招生考試 李祖学研究所

- 20. Toxic effects of the corticosteroids include all of the following except?
  - (A) Hypoglycemia
  - (B) Osteoporosis
  - (C) Growth inhibition
  - (D) Salt retention
  - (E) Psychosis
- 21. A 60-year-old woman with a positive mammogram undergoes lumpectomy, and a small carcinoma is removed. After this procedure she will probably receive:
  - (A) Flutamide
  - (B) Ketoconazole
  - (C) Danazol
  - (D) Leuprolide
  - (E) Tamoxifen
- 22. Effects of insulin include all of the following except ?
  - (A) Increases glucose transport into cells
  - (B) Stimulation of glycogenolysis
  - (C) Induction of lipoprotein lipase
  - (D) Decreases gluconeogenesis
  - (E) Decreases conversion of amino acids into glucose
- 23. All of the following agents cause their cytotoxic effects by interference in DNA transcription except?
  - (A) Doxorubicin
  - (B) Tamoxifen
  - (C) Cyclophosphamide
  - (D) Mechlorethamine
  - (E) Cisplatin
- 24. Which of the following statements concerning gold salts is correct?
  - (A) They may provide immediate relief of arthritic pain.
  - (B) They must all be given intramuscularly.
  - (C) They are drugs of first choice in treating arthritis.
  - (D) They frequently cause dermatitis of the skin or mucous membranes.
  - (E) They act by inhibiting prostaglandin synthesis.

## 85 學年度 國立成功大學 艾雅芬丽克 所 基理学 試題 共 (0頁 第 6 頁

- 25. Cyclosporine
  - (A) Interferes with antigen recognition
  - (B) Blocks tissue responses to inflammatory mediators
  - (C) Inhibits differentiation of T cells
  - (D) Stimulates production of NK cells
  - (E) Increases catabolism of IgG antibodies
- 26. Which of the following drugs is the agonist of dopamine D<sub>2</sub> receptor?
  - (A) Apomorphine
  - (B) Bicuculline
  - (C) Strychnine
  - (D) Phenothiazines
  - (E) Prazosin
- 27. Which of the following statements about pharmacological actions of general anesthetic is false?
  - (A) Diethylether may increase blood pressure.
  - (B) Body temperature may change minimal anesthetic concentration (MAC) of inhalational anesthetics.
  - (C) Sex does not influence MAC of inhalational anesthetics.
  - (D) Halothane may increase smooth muscle relaxation.
  - (E) Methoxyflurane may decrease heart rate.
- 28. Which of the following inhalational anesthetics possesses the most potent analgestic effect in general anesthesia?
  - (A) Diethylether.
  - (B) Nitrous oxide
  - (C) Haloxane
  - (D) Cyclopropane
  - (E) Isoflurane
- 29. Respiratory depression induced by morphine is meidated by:
  - (A)  $\mu_1$  receptors
  - (B) μ<sub>2</sub> receptrs
  - (C) δ receptors
  - (D) k receptors
  - (E)  $\delta \& \sigma$  receptors
- 30. Which of the following items shows least tolerance to morphine.
  - (A) Respiratory depression
  - (B) Bradycardia
  - (C) Miosis
  - (D) Analgesia
  - (E) Euphoria

## 图 學年度 國立成功大學 黄光学研究所 第 次 等 試題 共 10 頁 第 2 頁 第 2 頁

- 31. Which of the following local anesthetics shows vasocontriction?
  - (A) Cocaine
  - (B) Tetracaine
  - (C) Xylocaine
  - (D) Etidocaine
  - (E) Procaine
- 32. In the autonomic regulation of blood pressure,
  - (A) stroke volume and mean arterial blood pressure are primary direct determination of cardiac output.
  - (B) heart rate always increases when cardiac output decreases.
  - (C) elevation of blood pressure results in elevated aldosterone secretion.
  - (D) cardiac output is maintained at expense of other hemodynamic variables.
  - (E) Baroreceptor nerve endings increase firing rate when arterial pressure increases.
- 33. Alpha<sub>1</sub> receptors are associated with:
  - (A) Bronchodilatation.
  - (B) Cardioacceleration.
  - (C) Pupillary dilatation.
  - (D) Vasodilatation.
  - (E) All of the above.
- 34. In the treatment of myasthenia gravis, the best agent for distinguishing between myasthenic crisis and cholinergic crisis is:
  - (A) Atropine.
  - (B) Edrophonium
  - (C) Pralidoxim
  - (D) Echothiophate
  - (E) Physostigmine
- 35. The most dangerous toxic effect of the belladonna alkaloids in children is:
  - (A) Hyperthermia.
  - (B) Hallucination.
  - (C) Hypertension.
  - (D) Intraventricular heart shock.
  - (E) Dehydration.

#### 图 學年度 國立成功大學 李观学研究所 葬 程 学 試題 共力頁 爾士班招生考試 等观学研究所 華 程 学 試題 第 8 頁

- 36. Dilatation of vessels in muscle, contriction of cutaneous vessels, positive inotropic and chronotropic effects on the heart can be obtained by administration of:
  - (A) Metaproterenol.
  - (B) Acetylcholine.
  - (C) Isoproterenol.
  - (D) Epinephrine.
  - (E) Norepinephrine.
- 37. Propranolol is useful in all of the following, except:
  - (A) Familial tremor.
  - (B) Idiopathic hypertrophic cardiomyopathy.
  - (C) Partial atrioventricular heart block.
  - (D) Hypertension.
  - (E) Angina pectoria.
- 38. All of the following statements about ethanol are correct, except:
  - (A) At least 2 paths of metabolism of ethanol lead to formation of acetaldehyde.
  - (B) Disulfirum inhibits ethanol metabolism at the level of alcohol dehydrogenase.
  - (C) Metabolic tolerance to ehanol may result from increased activity of the microsomal ethanol oxidizing system.
  - (D) It is metabolized by zero-order kinetics and has no fix half-life.
  - (E) Confusion and amnesia suggest the possibility of Wernicke-Korsakoff syndrome.
- 39. Which of the following is most often associated with histamine release in some patients?
  - (A) Succinylcholine
  - (B) Dantrolene
  - (C) Vacuronium
  - (D) Pancuronium
  - (E) Tubocurarine
- 40. Activation of plasminogen to plasmin
  - (A) can be reversed by administration of vitamin K1 oxide.
  - (B) is used preoperatively and during surgery in patients prone do deep vein thrombosis.
  - (C) is brought about by parental streptokinase.
  - (D) is brought about by oral warfarin.
  - (E) is brought about by oral heparin.

### 85 學年度 國立成功大學 夢視学研究所 茅 祝 岁 試題 共 10頁 第 9 頁

- 41. Which of the following drugs is likely to interfere with vitamin K availability, leading to hypoprothrombinemia and possible bleeding disorder?
  - (A) Clavulanic acid
  - (B) Penicilline V
  - (C) Sod. cephalothin
  - (D) Mozalactam
  - (E) Dicloxacilline
- 42. All of the following drugs have activity against herp simplex, except:
  - (A) Vidarabine.
  - (B) Acyclovir.
  - (C) Idoxuridine.
  - (D) Amantadine.
  - (E) Trifluorothymidine.
- 43. All of the following agents are useful in oral contraceptives, except:
  - (A) Clomiphene.
  - (B) Norgestrel.
  - (C) Menstranol.
  - (D) Norethindrone.
  - (E) Ethinyl estradiol.
- 44. All of the following drugs can reverse one or more smooth muscle effects of circulating histamine in humans, except:
  - (A) Terbutaline.
  - (B) Epinephrine.
  - (C) Chloropheniramine.
  - (D) Phenylephrine.
  - (E) Lysergic acid diethylamide.
- 45. The following drugs show gastric mucosal protective actions, except:
  - (A) Carbenoxolone and bismuth.
  - (B) Atropine and prostaglandins.
  - (C) Sulpiride and methylmethionine sulfonium chloride.
  - (D) Prostaglandins and deglycyrrhizin
  - (E) Cetrazate and azulen

- 46. The following demonstrations about gastric acid back diffusion is true, except:
  - (A) It may increase intramural pH.
  - (B) It may cause exacerbation of peptic ulcer.
  - (C) It may proudce gastric hemorrhage.
  - (D) It can be inhibited by gastric mucosal cytoprotective agents.
  - (E) It may enhance histamine release.
- 47. Which of the following items stimulates the least concentrations of gastric mucus and pepsinogen secretion?
  - (A) 2-deoxy-d-glucose
  - (B) Sham feeding
  - (C) Bethanechol
  - (D) Histamine
  - (E) Vagal electric stimulation
- 48. The following explainations about metoclopramide are true, except:
  - (A) It is a potent dopamine antagonist.
  - (B) It is an antiemetic agent.
  - (C) It can be used in diabeties-induced gastroparesis and gastric motor failure.
  - (D) It mayy produce Parkinson's disease.
  - (E) It may inhibit galactorrhea and prolactin release.
- 49. The antidiarrheal agents include the followings, except:
  - (A) Charcoal and berberine tannate.
  - (B) Loperamide and mepenzolate bromide.
  - (C) Docuste and paregoric.
  - (D) Bismus bicarbonate and furazolidone.
  - (E) Kaolin and acidophilus.
- 50. The following demonstrations about laxatives are true, except:
  - (A) Steve-Johnson Syndrome may be produced by using anthraquinone.
  - (B) The accumulation of magnesium salts may cause impairment of the renal function.
  - (C) Stimulant laxatives may increase biosynthesis of prostaglandins and cAMP.
  - (D) Glycerin acts by its osmotic effect to soften and lubricate the passage of inspissate feces, and stimulates rectal contration and promotes colonic evacuation.
  - (E) Stimulant laxative may inhibit Na<sup>+</sup>-K<sup>+</sup> ATPase.