

	Tanta University Faculty of Pharmacy Department of Pharmacology & Toxicology			
	Examination for Second Level Pharmacy Students (Pharm-D)			
	Course Title	Final Exam Pharmacology I		Course Code PO 401
Date	6/6/2021	Term: 2	Total Assessment Marks: 50	Time Allowed 2 hours

Exam Instructions:

- The exam consists of pages numbered 1-5, in addition to the provided answer sheet.
- Select only **ONE** best answer for each question.
- Transfer your selection properly to the answer sheet.
- Each question equals (1) mark for a total of (50) marks for (50) questions.

Q1 – Q6:

- Match Drug from column (I) with its potential receptor activity from column (II).
- Transfer your selection match for each question properly to the answer sheet.

(I)	(II)
1-Clonidine	A-Non-specific alpha-adrenoceptor blocker.
2-Adrenaline	B-Non-specific beta adrenoceptor agonist.
3-Isoprenaline	C-Alpha-2 adrenoceptor agonist.
4-Prazocin	D-Alpha and beta adrenoceptor agonist.
5-Noradrenaline	E-Alpha-1 adrenoceptor blocker.
6-Tolazoline	

Q7 – Q12:

- Match Drug from column (I) with its potential therapeutic uses from column (II).
- Transfer your selection match for each question properly to the answer sheet.

(I)	(II)
7-Dopamine	A-Hypotensive shocks.
8-Isoproterenol	B-Hypertension.
9-Propranolol	C-Hypertension; Arrhythmias.
10-Phentolamine	D-Bronchial asthma.
11- Norepinephrine	E-Male erectile dysfunction.
12-Trimazocine.	

Q13 – Q17:

- Match Drug from column (I) with its potential adverse reaction from column (II).
- Transfer your selection match for each question properly to the answer sheet.

(I)	(II)
13-Metoprolol	A-Tachycardia.
14-Isoprenaline	B-Reflex bradycardia.
15-Norepinephrine	C-Bradycardia; bronchoconstriction.
16-Propranolol	D-Bradycardia.
17-Phentolamine	E-Hypotension.

18- Muscarinic agonists, are drugs that:

- A- Inhibit muscarinic receptor.
- B- Stimulate muscarinic receptor.
- C- Compete with acetylcholine for nicotinic receptor.
- D- All of the above.

19- The cardiac muscarinic receptors:

- A- Are of the M1 subtype.
- B- Are of the M3 subtype.
- C- Are of the M2 subtype.
- D- Function through the PIP2 → IP3 / DAG pathway.
- E- C and D are correct.

20- The following muscarinic agent is susceptible to hydrolysis by cholinesterase.

- A- Carbachol.
- B- Methacholine.
- C- Bethanechol.
- D- Pilocarpine.

21- Pilocarpine can produce all of the following effects Except:

- A- Lacrimation. B- Bronchoconstriction. C- Pupillary constriction.
D- Dry mouth. E- None of the above.

22- Muscarinic receptor can be stimulated by which of the following drug?

- A- Pilocarpine. B- Acetylcholine. C- Neostigmine.
D- Organic phosphate compound. E- All of the above.

23- A direct muscarinic agonist used for atonic bowel (GIT) or bladder?

- A- Bethanechol. B- Neostigmine. C- Physostigmine.

Q 24-27:

Choose the most appropriate ONE drug for each statement, each drug must be chosen ONCE.

- Transfer your selected match for each question to answer sheet.

- A- Edrophonium.
B- Echothiopate.
C- Pralidoxime
D- Carbachol

24- Irreversible anticholinesterase used to treat glaucoma.

25- Used to differentiate between myasthenic and cholinergic crisis.

26- Used in early of organophosphate poisoning to reactivate inhibited cholinesterase enzyme.

27- Direct cholinergic agonist has both muscarinic and nicotinic action.

28- Cholinergic agonist (parasympathetic drugs):

- A- Inhibit muscarinic receptors. B- Inhibit nicotinic receptor.
C- Stimulate muscarinic receptor only.
D- Stimulate muscarinic or nicotinic receptors.

29- Administration of a muscarinic receptor antagonist leads to:

- A- Increased sweat secretion. B- Decreased sweat secretion.
C- Increased gastric motility. D- Bronchoconstriction.

30- Atropine injection:

- A- Accelerates the heart rate. B- Increases the intestinal motility.
C- Diminish the salivary secretion.
D- All of the above. E- A&C are correct.

Q 31 – 34:

- Cross match the following atropine substitute to their uses.

Transfer your selected match for each question properly to answer sheet.

31- Scopolamine

A- In ophthalmology to produce mydriasis prior to refraction.

32- Benztropine

B- To prevent motion sickness.

33- Cyclopentolate

C- Treatment of asthma.

34- Ipratropium

D- To treat parkinson's disease.

35- Class III antiarrhythmics preferentially targets which of the following:

- A- Phase 3 of nodal action potential B- Phase 3 of cardiomyocyte action potential
C- Potassium channels responsible for repolarization
D- Both A&C E- Both B&C

36- Which of the following antiarrhythmics block sodium channels moderately:

- A- Flecainide B- Mexiletine C- Procainamide
 D- Both A&B E- None of the above

37- Class-specific side effects only of lidocaine includes:

- A- GI distress B- Neurotoxicity C- Nothing notable
 D- Both A&B E- Both B&C

38- "Torsade de pointes" is most likely to occur with of the following drugs:

- A- Quinidine B- Sotalol C- Dofetilide
 D- All of the above E-None of the above

39- Concerning organonitrates which of the following is correct:

- A- Afterload is decreased at low doses B- Preload is decreased at high doses
 C- Afterload is decreased at high doses D- Both A & B
 E- None of the above

40- Calcium channel blockers decrease myocardial oxygen demand because of:

- A- Negative chronotropy B- Negative inotropy C- Veinodilation
 D- Both A&B E- Both B&C

41- Which of the following beta blockers increases endothelial nitric oxide:

- A- Labetalol B- Carvedilol C- Nebivolol
 D- Both A&B E- Both B&C

42- Coronary vasodilation by calcium channel blockers involves:

- A- Increased formation of phosphorylated MLCK
 B- Decreased formation of phosphorylated MLCK
 C- increased guanylate cyclase activity
 D- Both A&C E- Both B&C

Questions 43 to 45:

- Match each drug from column (I) with its potential therapeutic indication from column (II).
- Transfer your selected match for each question properly to the answer sheet.

(I)	(II)
43- Hydrochlorothiazide	A- Polycystic ovary syndrome.
44- Spironolactone	B- Mountain sickness.
45- Acetazolamide	C- Idiopathic hypercalciuria.

46- Both loop and thiazide diuretics cause hypocalcemia.

- A- True. B- False.

47- Both triamterene and spironolactone are K^+ -sparing diuretics that act by the same mechanism of action.

A- True.

B- False.

48- Mannitol is used to maintain high urine flow in case of rhabdomyolysis.

A- True.

B- False.

49- Acetazolamide should be avoided in patients with hepatic cirrhosis.

A- True.

B- False.

50- Bumetanide is used for management of diabetes insipidus of nephrogenic origin.

A- True.

B- False.

Best Wishes