

SET II

Subject: Pharmacology I

Year and Sem: Second Year B.Pharm sem IV (CBCS)

Duration: 3 hrs

Total marks: 80 M

N.B. : 1. All questions are compulsory

2. Figures to right indicate full marks

Q. 1	Choose appropriate option for following multiple choice based questions.	20
1	What is characteristic of the oral route?	
a	Fast onset of effect	
b	Absorption depends on GI tract secretion and motor function	
c	A drug reaches the blood passing the liver	
d	The sterilization of medicinal forms is obligatory	
2	Which of the following processes proceeds in the second phase of biotransformation?	
a	Acetylation	
b	Reduction	
c	Oxidation	
d	Hydrolysis	
3	If an agonist can produce submaximal effects and has moderate efficacy it's called:	
a	Partial agonist	
b	Antagonist	
c	Agonist-antagonist	
d	Full agonist	
4	Give the definition for a therapeutical dose:	
a	The amount of a substance to produce the minimal biological effect	
b	The amount of a substance to produce effects hazardous for an organism	
c	The amount of a substance to produce the required effect in most patients	
d	The amount of a substance to accelerate an increase of concentration of medicine in an organism	
5	The increase of second messengers' (cAMP, cGMP, Ca ²⁺ etc.) concentration leads to:	
a	Inhibition of intracellular protein kinases and protein phosphorylation	
b	Proteinkinases activation and protein phosphorylation	
c	Blocking of interaction between a receptor and an effector	
d	Antagonism with endogenous ligands	
6	The term "chemical antagonism" means that:	
a	two drugs combine with one another to form an inactive compound	
b	two drugs combine with one another to form a more active compound	
c	two drugs combine with one another to form a more water soluble compound	
d	two drugs combine with one another to form a more fat soluble compound	

7	Which of the following cholinomimetics activates both muscarinic and nicotinic receptors?	
a	Lobeline	
b	Pilocarpine	
c	Nicotine	
d	Bethanechol	
8	Atropine causes:	
a	Miosis, a reduction in intraocular pressure and cyclospasm	
b	Mydriasis, a rise in intraocular pressure and cycloplegia	
c	Miosis, a rise in intraocular pressure and cycloplegia	
d	Mydriasis, a rise in intraocular pressure and cyclospasm	
9	Which of the following effects is associated with beta 3 -receptor stimulation?	
a	Lipolysis	
b	Decrease in platelet aggregation	
c	Bronchodilation	
d	Tachycardia	
10.	Which of the following direct-acting drugs is a relatively pure alfa agonist, an effective mydriatic and decongestant and can be used to raise blood pressure?	
	Epinephrine	
	Norepinephrine	
	Phenylephrine	
	Ephedrine	
11.	Which of the following drugs is a nonselective alfa receptor antagonist?	
a	Prazosin	
b	Phentolamine	
c	Metoprolol	
d	Reserpine	
12	This drug is a Class II antiarrhythmic drug:	
	Flecainide	
	Propranolol	
	Lidocaine	
	Verapamil	
13	Which of the following antianginal agents is a potassium channel opener:	
	Dipyridamole	
	Validol	
	Atenolol	
	Nicorandil	
14	This drug reduces blood pressure by acting on vasomotor centers in the CNS:	
	Labetalol	
	Clonidine	

	Enalapril	
	Nifedipine	
15	This drug is contraindicated in patients with bronchial asthma:	
a	Propranolol	
b	Clonidine	
c	Enalapril	
d	Nifedipine	
16	Choose the group of antihypertensive drugs which diminishes the metabolism of bradykinin:	
a	Ganglioblockers	
b	Alfa-adrenoblockers	
c	Angiotensin-converting enzyme inhibitors	
d	Diuretics	
17	The reason of diuretics administration for hypertension treatment is:	
a	Block the adrenergic transmission	
b	Diminishing of blood volume and amount of Na ⁺ ions in the vessels endothelium	
c	Depression of rennin-angiotensin-aldosterone system	
d	Depression of the vasomotor center	
18	The drug is the least potent diuretic:	
a	Osmotic diuretics	
b	Loop diuretics	
c	Thiazide diuretics	
d	Potassium-sparing diuretics	
19	These agents must be given parenterally because they are not absorbed when given orally:	
a	Osmotic diuretics	
b	Loop diuretics	
c	Thiazide diuretics	
d	Potassium-sparing diuretics	
20	Spironolactone acts at this nephron site	
a	Proximal convoluted tubule	
b	Ascending thick limb of the loop of Henle	
c	Distal convoluted tubule	
d	Collecting duct	
Q. 2	Answer any one question.	12
A		
a	I. Describe the mode of action, therapeutic use and adverse reactions of Clonidine	

	II. Mention the different classes of drugs used as antihypertensive? Discuss the mechanism of action and unwanted effects of enalapril.	
b	I. Classify Receptors with examples. Explain Signal transduction mechanism of Tyrosine kinase receptors. II. Write a note on drug synergism.	
Q. 2 B	Answer any four questions	48
a	Write biosynthesis, storage, release, uptake and metabolism of neurotransmitter of Sympathetic nervous system indicate the sites of action for the drugs on the sympathetic nervous system.	
b	Classify antiarrhythmic drugs. Give an account of the pharmacology of Quinidine and Procainamide.	
c	I. Write the classification of Diuretics. Short note on Osmotic diuretics. II. Write MOA, Uses and adverse effects of Furosemide.	
d	A. Classify Routes of drug administration. Explain oral route with special Reference to their Advantages and disadvantages. B. What is Bioavailability? Elaborate on factors affecting bioavailability.	
e	Describe the Pathophysiology and drug therapy for any three: a) Glaucoma. b) Myasthenia gravis c) Organophosphate poisoning d) Atropine poisoning	