JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester V) Examination Dec 2024

Programme: B. Pharm
Course: Medicinal Chemistry II **Full Marks: 75**
Course Code: BP501T **Time: 3 Hrs.**
Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Objective Type Questions**			
	i. Histamine is distributed equally among the tissue. (a)True (b)False ii. Which of these is not an antihistamine drug? (a)Dimenhydrinate (b)Levocetirizine (b)Cyclizine (d)Piroxicam iii. Vasodilators are used to treat: a. Acute heart failure attending myocardial infarction b. Chronic heart failure due to diastolic dysfunction c. Chronic heart failure due to both systolic as well as diastolic dysfunction d. All of the above iv. Calcium channel blockers can be used as anti-anginal drugs. a.True b.False v. Calcium channel blockers allow calcium movement from outside the cell to inside the cell through their channels. a.True b.False vi. Which of the following is the mechanism of action of spironolactone? a) through osmotic effects b) through enzyme inhibition c) through interaction with hormonal receptors d) through inhibition of a cotransporter vii. Which of the following diuretics act on specific membrane transport proteins? a) mannitol b) indapamide c) amiloride d) spironolactone viii. A drug that can be used for alkalization of urine is a) Hydrochlorthiazide b) Furosemide c)Acetazolamide d) Sphironolactone ix. Loop diuretics act on – a) PCT b) DCT c)Thin descending loop of Henle d)Thick ascending loop of Henle x. Which of the following is a potassium losing diuretic? a.Amiloride b.Conivaptan c.Triamterene d.Hydrochlorothiazide xi. What is the site of action of class II anti-arrhythmic drugs? (a)SA Node (b)AV Node (c) Both of these (d) Ventriculer tissue xii. In Bosentan how many pyrimidine group is present? (a)1 (b)2 (c) 3 (d)4 xiii. In progesterone acetyl group is attached in which position? (a)12 (b)13 (c)17 (d)18 xiv. Levo form of Norgestril is – (a)Optically active (b)Optically inactive (c) Both of these (d) not showing any kind of optical activity xv. Quinidine obtained in which class of anti-arrhythmic drugs? (a)Class I (b)Class II (c) Class III (d)Class IV xvi. Which of the following is not a major risk factor for atherosclerosis? (a) Family history (b) Cigarette smoking (c) Obesity (d) Male gender xvii. Long-term use of PPIs can delay the diagnosis of: (a) Hepatitis (b) Anemia (c) Gastrinomas (d) Dementia xviii. Propanol is a. Muscarnic M1 receptor agonist. b. Non- selective beta receptor antagonist. c. Selective beta 1 agonist. d. Non selective dopaminergic antagonist. xix.Drug receptor site for sulfonylurea is- a.Muscarinic receptor. b.Calcium channel. c.Pottasium channel. d.Beta adrenergic receptor. xx.Captopril,Lisinopril and Enanpril are a.ACE inhibitors. b.Beta blockers, c.Alpha 2 antagonists. d. None of the above.	CO1	Remember	**1 x 20 = 20**

Section II				
2. Short Answer type questions.				**7 x 5 = 35**
a	Write down the synthesis of Diphenhydramine hydrochloride & its mechanism of action.	CO1	Remember	
b	Elaborate the structure and IUPAC name of the [i] Captopril [ii] Lisinopril [iii] Enanpril [iv] Quinapril	CO2	Understand	
c	Give the example of two drugs used in congestive heart failure with proper structure and mechanism of action.	CO3	Remember	
d	Write the structure and mechanism of action of Testosterone & Progesterone.	CO4	Remember	
e	Define Biguanides and glucosidase inhibitors with example.	CO5	Understand	
f	Write the mechanism of action of Angiotensin Converting enzyme inhibitor.	CO2	Remember	
	or			
	Write the synthesis and mechanism of action of Furosemide.	CO2	Understand	
g	Write about the two drugs used for erectile dysfunction with proper structure.	CO4	Understand	
	or			
	Write the structure and mechanism of action of Cortisone and hydrocortisone.	CO4	Remember	
Section III				
Long Answer Type questions				**2 x 10 = 20**
3	Explain the SAR of local anaesthetics. And also explain the mechanism of action of local	CO5	Analyze	
	or			
	Write down the synthesis of Benzocaine with its mechanism of action.	CO5	Create	
4	Elaborate the classification of anti-arrhythmic drugs with their site of action and uses.	CO3	Analyze	
	or			
	Explain the mechanism of action of Bosentan, Tezosentan & Nesiritide with structure and uses.	CO3	Evaluate	

Course Outcomes (CO):

CO1: Understand the importance of drug design and different techniques of drug design
CO2: Understand the chemistry of drugs with respect to their biological activity
CO3: Know the metabolism, adverse effects and therapeutic value of drugs.
CO4: Know the importance of SAR of drugs
CO5: Knowledge about structure & synthesis & IUPAC name.