


Name:		 UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2023	
Enrolment No:			
Course: Pharmacology-II Program: B.Sc. (Clinical Research) Course Code: HSCR2007			
Semester: IV Time : 03 hrs. Max. Marks: 100			
Instructions: Attempt all the questions			
Q.No	Section A Short answer questions/ MCQ/T&F	(20Q x1.5M= 30 Marks)	COs
Q	Attempt all the questions		CO
1.	The mechanism of action of Verapamil is a) β -blocker b) Calcium channel blocker b) Na/K ATPase inhibitor d) Potassium channel opener	1.5	CO2
2.	Losartan is a a) Renin inhibitor b) ACE inhibitor b) Angiotensin receptor blocker d) Diuretic	1.5	CO2
3.	Warfarin can be used in a) Clot formation b) Myocardial infarction c) Deep vein thrombosis d) All of the above	1.5	CO4
4.	The main side effects of anti-hypertensive could be a) Congestion b) Shock c) Nausea d) Fluid retention	1.5	CO3
5.	Histamines can initiate a) Headache b) Mood elevation c) Allergy d) Vomiting	1.5	CO5
6.	Which of the following is a non-selective COX inhibitor? a) Celecoxib b) Valdecoxib c) Indomethacin d) All of the above	1.5	CO2
7.	Dopamine can act as a) Prolactin releasing hormone b) Prolactin inhibitor	1.5	CO1

	c) Thyroid releasing hormone d) Thyroid inhibitor		
8.	Which of the following is an action of parathyroid hormone? a) Bone resorption b) Hypercalcemia c) Hypophosphatemia d) All of the above	1.5	CO4
9.	Bioassay is done to find out a) Chemical composition b) Potency of a drug c) Toxicity of a substance d) Physical status of a drug	1.5	CO5
10.	Metformin treatment is given in case of a) Type 1 diabetes b) Type 2 diabetes c) Both a & b d) None of the above	1.5	CO4
11.	Growth hormone excess leads to a) Gigantism b) Acromegaly c) Both d) None of the above	1.5	CO5
12.	Name a drug used for Myocardial infarction.	1.5	CO4
13.	Define anticoagulant.	1.5	CO5
14.	Name a drug which acts as sodium channel blocker.	1.5	CO2
15.	Provide an example of anti-platelet agent.	1.5	CO1
16.	Provide the example of potassium sparing diuretic.	1.5	CO1
17.	Mention one use of 5HT3 receptor antagonist.	1.5	CO4
18.	Mention one contraindication of fibrinolytic agents.	1.5	CO3
19.	Name an immunosuppressant used as anti-rheumatic drug.	1.5	CO4
20.	Name the aldosterone receptor antagonist.	1.5	CO1
	Section B	(4Qx5M=20 Marks)	CO
Q	Attempt all the questions		
1.	Classify calcium channel blockers and angiotensin receptor blockers with examples.	5	CO1

2.	Write down the mechanism of action and uses of Loop diuretics.	5	CO2, CO4
3.	Mention the pharmacological actions of Leukotrienes and Bradykinin.	5	CO5
4.	Write down the bioassay of Oxytocin.	5	CO5
Section C		(2Qx15M=30 Marks)	
Q	Attempt all the questions (Case studies)		CO
1.	<p>Sara, aged 38, complains to her family physician of weight gain, constipation, and lethargy. Significant findings upon physical examination include the following: At 5 feet, 4 inches and 169 lb, she is moderately overweight. Blood pressure is 152/92; pulse, 59; neck is full, with an enlarged (1.5 to 2 times normal) thyroid gland; deep tendon reflexes display delayed relaxation.</p> <p>Results of Laboratory Test of Sara- Total serum T4: 2.7 mg/dL, T3: 25–35% TSH: 0.3–5.0 mU/L</p> <p>Normal range: T4: 5.0–12.0 mg/dL; T3: 20%; TSH 87.5 mU/L;</p> <p>Weight gain, constipation, and lethargy can all be symptoms of hypothyroidism. In addition, mild hypertension, goiter, and delayed relaxation of deep tendon reflexes are among the common physical findings of hypothyroidism.</p> <ol style="list-style-type: none"> 1. What are your interpretations of the clinical findings and 2. What treatment would you suggest? 	2*7.5=15	CO4
2.	<p>George Smith is taking insulin for the first time. His physician prescribes 20 units NPH and 5 units regular insulin at breakfast, and 10 units NPH and 5 units regular insulin at dinner. After a few days, Mr. Smith begins to notice this approximate pattern in his blood sugar measurements: 8 A.M. (fasting), about 110; noon (before lunch), about 120; 5 P.M. (before dinner), about 55; bedtime, about 115. When his blood sugar is about 55, he feels shaky and sweaty, but this goes away if he has something to eat.</p> <p>Which of the following changes would you recommend to his regimen?</p> <ul style="list-style-type: none"> • Decrease his morning regular insulin. • Decrease his morning NPH insulin. • Stop evening insulin and add a sulfonylurea at bedtime. • Have him eat a larger lunch. • Move his evening NPH insulin from supper time to bedtime. 	15	CO4
Section D		(2Qx10M=20 Marks)	

Q	Attempt all the questions		CO
1.	Write down the detail classification of anti-hyperlipidemic drugs with their mechanism of actions, adverse effects, and uses.	10	CO1,CO2, CO3, C04
2.	Discuss the anterior pituitary hormones, their analogs, and therapeutic uses.	10	CO1, CO4