Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2022

Course: Pharmacology 1 **Semester : 3rd**
Program: B.Sc (Clinical Research) **Duration : 3 Hours**
Course Code: HSCR2001 **Max. Marks: 100**

Instructions: Attempt all

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	Cos
Q 1	Mention two natural sources of drugs with examples.	1.5	CO1
Q 2	Transdermal drug delivery systems offer the following advantages except: A. They produce high peak plasma concentration of the drug B. They produce smooth and nonfluctuating plasma concentration of the drug C. They minimize interindividual variations in the achieved plasma drug concentration D. They avoid hepatic first-pass metabolism of the drug	1.5	CO1
Q 3	Majority of drugs cross biological membranes primarily by: A. Passive diffusion B. Facilitated diffusion C. Active transport D. Pinocytosis	1.5	CO1
Q 4	Weakly acidic drugs: A. Are bound primarily to α1 acid glycoprotein in plasma B. Are excreted faster in alkaline urine C. Are highly ionized in the gastric juice D. Do not cross blood-brain barrier	1.5	CO1
Q 5	High plasma protein binding: A. Increases volume of distribution of the drug B. Facilitates glomerular filtration of the drug C. Minimizes drug interactions D. All of the above.	1.5	CO1
Q 6	Biotransformation of drugs is primarily directed to: A. Activate the drug B. Inactivate the drug C. Convert lipid soluble drugs into nonlipid soluble metabolites D. Convert nonlipid soluble drugs into lipid soluble metabolites	1.5	CO1
Q 7	Describe various types of signal transduction mechanisms in cell?	1.5	CO2
Q 8	Explain adverse drug reaction. Mention different ADRs	1.5	CO2

Q 9	he most commonly occurring conjugation reaction for drugs and their metabolites is: A. Glucuronidation B. Acetylation C. Methylation D. Glutathione conjugation	1.5	CO2
Q 10	A partial agonist can antagonize the effects of a full agonist because it has: A. High affinity but low intrinsic activity B. Low affinity but high intrinsic activity C. No affinity and low intrinsic activity D. High affinity but no intrinsic activity	1.5	CO2
Q 11	If the effect of combination of two drugs is equal to the sum of their individual effects, the two drugs are exhibiting: A. Potentiation B. Synergism C. Cross tolerance D. Antagonism	1.5	CO2
Q 12	Explain drug response relationship with suitable example.	1.5	CO2
Q 13	Draw chemical structure of acetylcholine.	1.5	CO3
Q 14	Enlist drugs used in the treatment of myasthenia gravis.	1.5	CO3
Q 15	Write the uses of sympatholytic.	1.5	CO3
Q 16	Write the uses of Pilocarpine.	1.5	CO3
Q 17	Explain one drug used in Alzheimer's disease.	1.5	CO4
Q 18	What is the difference between drug tolerance and drug dependence.	1.5	CO4
Q 19	Mention about Hallucinogenic agents.	1.5	CO4
Q 20	Explain drug abuse with suitable example.	1.5	CO4
Section B (4Qx5M=20 Marks)			
Q 1	Explain bioavailability with the help of a graph. Mention factors affecting bioavailability.	5	CO1
Q 2	Explain ion channel receptors with example.	5	CO2
Q 3	Write a note on indirect acting cholinergic agonist. Explain their therapeutic uses.	5	CO3
Q 4	What are antipsychotics? Write the significance of lithium salt as antipsychotics.	5	CO4
Section C (2Qx15M=30 Marks)			
Q 1	Write a note on general anesthetic agents? Illustrate various stages of general anesthesia.	15	CO3
Q 2	Differentiate the pathophysiology of Parkinson's disease and Alzheimer's disease. Classify anti-Parkinson's drugs with examples, explaining one drug in detail.	15	CO4
Section D			

(2Qx10M=20 Marks)			
Q 1	List and explain the mechanism by which drug absorption takes place.	10	CO1
Q 2	Classify drug-drug interactions. Explain in detail the pharmacokinetics of drug-drug interaction with examples.	10	CO2