Name: **Enrolment No:**	

UPES

End Semester Examination, May 2024

Course: Pharmacology II **Semester:** IV

Program: Integrated BMSc. Clinical Research **Duration:** 3 Hours

Course Code: HSCR2018 **Max. Marks:** 100

Instructions: Attempt all questions

S. No.	**Section A** **Short answer questions/ MCQ/T&F** **(20Qx1.5M= 30 Marks)**	**Marks**	**COs**
Q 1	Bromocriptine is agonist of……. a. Dopamine b. Serotonin c. Acetylcholine d. Epinephrine	1.5	CO1
Q2	Alteplase is……. a. Anticoagulant b. Antiplatelet c. Fibrinolytic e. Antifibrinolytic	1.5	CO1
Q3	Which of the following hormones is inhibited by anti-diuretic drugs? a. Aldosterone b. Vasopressin c. Cortisol d. Insulin	1.5	CO1
Q4	Which of the following is a synthetic derivative of testosterone used for androgen replacement therapy? a. Estradiol b. Nandrolone c. Methyltestosterone d. Drospirenone	1.5	CO1
Q5	Which diuretic is often referred to as a "potassium-sparing" diuretic? a. Spironolactone b. Furosemide c. Hydrochlorothiazide d. Mannitol	1.5	CO1

Q6	Which of the following class is commonly used as first-line therapy for acute episodes of angina? a. Beta-blockers b. Calcium channel blockers c. Nitrates d. ACE inhibitors	1.5	CO1
Q7	Differentiate between classical and variant angina?	1.5	CO1
Q8	Differentiate between COX-1 and COX-2 enzyme.	1.5	CO1
Q9	What is the primary function of thyroid hormones? a. Regulate blood glucose levels b. Control metabolism c. Lower blood pressure d. Increase heart rate	1.5	CO2
Q10	What is the primary function of corticosteroids? a. Regulate electrolyte balance b. Control blood pressure c. Reduce inflammation d. Stimulate bone growth	1.5	CO2
Q11	Write the mechanism of aspirin as blood thinning agent.	1.5	CO2
Q12	An increase in heart rate and renin release seen in patients of CHF can be overcome by which of following drugs……. a. Minoxidil b. Metoprolol c. Metolazone d. Milrinone	1.5	CO2
Q13	What is the primary mechanism of action of statins? a. Inhibition of cholesterol absorption in the intestine b. Inhibition of HMG-CoA reductase enzyme c. Activation of lipoprotein lipase d. Inhibition of bile acid synthesis	1.5	CO2
Q14	Which hormone is primarily responsible for regulating blood calcium levels by stimulating bone resorption? a. Parathormone b. Calcitonin c. Thyroid hormone d. Insulin	1.5	CO2
Q15	Which drug category is used to induce uterine contractions? a. Androgens b. Anti-gout drugs c. Hematinics d. Oxytocics	1.5	CO3
Q16	Cabergoline is used in……	1.5	CO3

	a. Hyperprolactinemia b. Acromegaly c. Both A and B d. Autism		
Q17	Citrullination is conversion of ……. to citrulline. a. Threonine b. Arginine c. Methionine d. Tryptamine	1.5	CO3
Q18	Which of the following bioassay method evaluates the presence or absence of a biological effect? a. Quantal bioassay b. Graded bioassay c. Fixed bioassay d. Threshold bioassay	1.5	CO4
Q19	A highway truck driver has profuse Rhinorrhea and sneezing. Which among the following drugs would you prescribe him? a. Pheniramine b. Promethazine c. Dimenhydrinate d. Cetirizine	1.5	CO5
Q20	Which of the following drug is used in the therapy of shock to improve blood pressure? a. Diuretics b. Hematinics c. Plasma volume expanders d. Anti-arrhythmic drugs	1.5	CO5
Section B (4Qx5M=20 Marks)			
Q 1	Discuss the pathophysiology, symptoms, and treatment of adrenal insufficiency.	5	CO5
Q2	Write a note on oral contraceptives.	5	CO2
Q3	Define bioassay and discuss the types (methods) of bioassay.	5	CO3
Q4	Elaborate the role of vitamin K in blood.	5	CO1
Section C (2Qx15M=30 Marks)			
Q1	Explain the mechanism of renin-angiotensin system inhibition with example (drugs used) in cardiovascular system.	15	CO1, CO5
Q2	Discuss the types and pathophysiology of diabetes. Classify (with example) oral hypoglycemic drugs based on mechanism of action.	(5+10)	CO1, CO3

Section D (2Qx10M=20 Marks)			
Q 1	Discuss in detail the physiological role and clinical uses of hormones released from posterior pituitary glands. **OR** Write detailed note on classification, mechanism of action, and side effects of anti-hyperlipidemic drugs.	10	CO2
Q2	a. Define and classify autocoids. b. Write a note on non-steroidal anti-inflammatory drugs (NSAIDs). **OR** A 35-year female patient of inflammatory bowel disease was treated with prednisolone 40 mg/day and mesalazine 800 mg TDS. After 4 weeks, the symptoms subsided, and prednisolone dose was tapered at the rate of 10 mg every 2 weeks. When she was taking 10 mg prednisolone/day, she met with a road-side accident and suffered compound fracture of both bones of the right leg. Internal fixation of the fracture and suturing of wounds under general anesthesia is planned. a. Whether any additional measure needs to be taken during surgery in view of her corticosteroid therapy? Justify your answer. b. Does the prednisolone therapy need discontinuation or any alteration in the postoperative period? Give reasons.	(5+5)	CO1, CO3 CO5