


Name:	 UPES <small>UNIVERSITY WITH A PURPOSE</small>
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2021

Course: Pharmacology and Toxicology II

Semester: II

Program: M. Sc Clinical Research

Time : 03 hrs.

Course Code: HSCC 7011

Max. Marks: 100

Instructions:

SECTION A

S. No.	MCQs or Fill in the blanks (1.5 marks each)	30 Marks	CO
1	Mediator promoting greatest increase in vascular permeability, associated with acute inflammation: a. Serotonin b. Prostaglandins c. Bradykinin d. Leukotrienes	1.5	CO1
2	Which of the following is the most common adverse effect of amphotericin B? a. Bone marrow suppression b. Hypokalemia c. Hypomagnesemia d. Nephrotoxicity	1.5	CO2
3	Identify the correct statement regarding the mechanism of thrombolytic drugs a. Thrombolytics inhibit the hepatic synthesis of clotting factors b. Thrombolytics binds to antithrombin III and increases the inactivation of clotting factors c. Thrombolytics inhibit the vitamin K dependent carboxylation glutamate residue of clotting factors d. Thrombolytics activates plasminogen, and cleaves & remove the fibrin clots arteries/veins.	1.5	CO3
4	The following drugs have significant drug interaction with digoxin, except: a. Cholestyramine b. Thiazide diuretics c. Quinidine d. Amlodipine	1.5	CO4
5	This hormone is responsible for “fight-or-flight” response a. Thyroxine and melatonin b. Insulin and glucagon c. Epinephrine and norepinephrine d. Oestrogen and progesterone	1.5	CO5

6	<p>Immediate hemostatic responds to the damage vessel:</p> <ol style="list-style-type: none"> Platelet adhesion Platelet aggregation Platelet viscous metamorphosis Vasospasm 	1.5	CO1
7	<p>Signs and symptoms of include:</p> <ul style="list-style-type: none"> Constipation Fatigue Heart rhythm problems (arrhythmias) Muscle cramps Weakness 	1.5	CO2
8	<p>Angiotensin II is a more potent vasopressor than norepinephrine</p> <ol style="list-style-type: none"> True False 	1.5	CO3
9	<p>The drug inhibits platelet aggregation by inhibiting the enzyme cyclooxygenase and formation of thromboxane A2</p> <ol style="list-style-type: none"> Aspirin Abciximab Clopidogrel Warfarin 	1.5	CO4
10	<p>This hormone is not secreted by Hypothalamus</p> <ol style="list-style-type: none"> PRH FSH CRH TRH 	1.5	CO5
11	<p>MDR (multi-drug resistance) TB: is defined as resistance to</p> <ol style="list-style-type: none"> More than three anti tubercular drugs Isoniazid and rifampin irrespective of resistance to any other drug INH, PZA and Rifampicin Fluoroquinolones and at least one of the three injectable second-line drugs used to treat TB 	1.5	CO1
12	<p>Following are the first line anti-tubercular drugs except:</p> <ol style="list-style-type: none"> Isoniazid Rifampin PAS Streptomycin 	1.5	CO2
13	<p>Methyl dopa</p> <ol style="list-style-type: none"> Lowers the heart rate and cardiac output more than clonidine does Causes reduction in renal vascular resistance Has minimal CNS side effects Has 80% bioavailability 	1.5	CO3

14	Which of the following antiviral drug is used to treat influenza A? a. Dextran sulfate b. Amantadine c. Ganciclovir d. Cidofovir	1.5	CO4
15	This is the most abundant hormone produced by the anterior pituitary a. LH b. TSH c. ACTH d. GH	1.5	CO5
16	Why antiviral drugs cannot cure HIV? a. They do not block viral replication b. They cannot block viral translation c. They cannot block viral transcription d. They do not penetrate the cells	1.5	CO1
17	Miconazole oral gel interacts with warfarin due to: a. Additive anticoagulant effects b. Miconazole inhibits renal excretion of warfarin c. Miconazole antagonizes the anticoagulant effects of warfarin d. Miconazole inhibits hepatic metabolism of warfarin	1.5	CO2
18	Immunomodulatory sedative drugs used in the management of some forms of leprosy; also effective in managing skin manifestations of lupus erythematosus a. Tacrolimus b. Cyclophosphamide c. Thalidomide d. Diazepam	1.5	CO1
19	Among anticancer antibiotics: most toxic— a. Plicamycin (Mithramycin) b. Dactinomycin (Cosmegen) c. Doxorubicin (Adriamycin) d. Bleomycin (Blenoxane)	1.5	CO4
20	This is not a function of insulin a. Decreasing glycogenolysis b. Lipogenesis c. Gluconeogenesis d. Glycogenesis	1.5	CO5

SECTION B: 20 marks 4 questions 5 marks each, word limit-not more than 250 words

Q	Short Answer Type Question (5 marks each) Scan and Upload 4 questions 5 marks each	20 Marks	CO
1	<p>Novel coronavirus 2019 (COVID-19) also known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped, non-segmented positive-sense RNA virus belonging to the beta-coronaviridae family which can lead to difficulty breathing requiring mechanical ventilation and intensive care unit management. A 77-year-old female with a history of hypertension and hyperlipidemia who presented as a transfer to City hospital facility with worsening fevers, cough, and respiratory distress. While City hospital tested found a negative COVID-19 after treatment, but the result at a previous hospital shown positive.</p> <p>a. What are the probable key interventions taken by the hospital for the control of the disease?</p> <p>b. How can you help a family member with COVID-19 at home? (3+2)</p>	5	CO1, CO4
2	Both the nitrates and beta-adrenergic blocking agents have antianginal properties. Compare and contrast the pharmacologic effects of these two classes of compounds.	5	CO2, CO3
3	Which medications in the drug class antiprotozoal agents are used in the treatment of Leishmaniasis?	5	CO4
4	What is the mechanism of action and pharmacokinetics of glucocorticoids? (3+2)	5	CO5

SECTION C 30 marks

Q	Two case studies 15 marks each subsections	30 Marks	CO
1	<p>Several studies have been conducted, including some small randomised studies, to assess the use of cyclosporin in Crohn's disease. The evidence suggests that intravenous cyclosporin can induce disease remission in severe flares of ulcerative colitis that is unresponsive to corticosteroids. Oral cyclosporin has only been shown to be useful as a bridging treatment between intravenous cyclosporin and more long-term maintenance strategies.</p> <p>a. What should you discuss with her about the use of cyclosporin?</p> <p>b. What dose of cyclosporin should she receive and how should it be given?</p> <p>c. What drugs would you expect her to be discharged on? (3x5)</p>	15	CO1, CO4
2	<p>Mr AP, a 56-year-old former coal miner, presents to your hospital pharmacy from the oncology outpatients department with a prescription for the following medications:</p> <ul style="list-style-type: none"> • ondansetron 4 mg p.o. b.d. for 5 days • dexamethasone 2 mg p.o. b.d. for 5 day • ranitidine 150 mg p.o. b.d. for 2 weeks. <p>On questioning the patient, you discover that he suffers from the 'more common' type of lung cancer and is undergoing 'irradiation' treatment currently. At this point you also notice that his right index and middle fingers as well as his teeth are stained yellow.</p> <p>a. What are the risk factors associated with the development of lung cancer?</p> <p>b. Briefly describe the class of drugs that ondansetron, dexamethasone and ranitidine belong to and:</p> <p>(i) how ondansetron and dexamethasone work in the</p>	15	CO2, CO5

	<p>management of nausea and vomiting;</p> <p>(ii) how ranitidine works in the management of dyspepsia;</p> <p>(iii) the rationale for co-prescribing ranitidine and dexamethasone.</p> <p>c. Mr AP states that he readily suffers from bouts of constipation and is concerned that these new tablets may worsen this. What would you advise? (3+(3x3)+3))</p>		
	SECTION- D 20 marks		
Q	Long Answer type Questions Scan and Upload (10 marks each); word limit-not more than 500 words	20 Marks	CO
1	<p>a. Mention the differences between primary and secondary tuberculosis.</p> <p>b. Write briefly about microscopic features of tuberculosis.</p> <p>c. What are the main distinctions between hormones and neurotransmitters? (3+3+4)</p>	10	CO1, CO3, CO5
2	<p>a. Which treatments may be needed in the management of HIV infection?</p> <p>b. Which medications in the drug class Immunosuppressants are used in the treatment of Primary Systemic Amyloidosis?</p> <p>c. How is the rate of hormone synthesis and secretion regulated? (3+3+4)</p>	10	CO2, CO4, CO5