


Name:	
Enrolment No:	

UPES
End Semester Examination, December 2023

Course: Pharmacotherapeutics 1 **Semester : III**
Program: B.Sc. (Clinical Research) **Duration : 3 Hours**
Course Code: HSCR2002 **Max. Marks : 100**

Instructions: Read all the questions carefully.

Section A			
S. No.	Short answer questions/ MCQ/T&F (20Qx1.5M = 30 Marks)	Marks	COs
Q1	Define cell injury and homeostasis.	1.5	CO1
Q2	Adaptive cell responses, such as aplasia and atrophy are potentially reversible processes. True or false, with reason.	1.5	CO1
Q3	What is the difference between metaplasia and dysplasia?	1.5	CO1
Q4	Pain is felt at the area of paper cut. This response is related to ____ a) increased perfusion at the site. b) increased exudate and chemical mediators at the site. c) bacteria that have entered the wound. d) vasoconstriction at the site.	1.5	CO1
Q5	A decrease in cellular pH will result in ____ of nuclear chromatin.	1.5	CO1
Q6	Mitochondrial damage often results in the formation of a _____ in the mitochondrial membrane.	1.5	CO1
Q7	Phagocytes involved in acute inflammation are _____, while those involved in chronic inflammation are _____.	1.5	CO2
Q8	Mention factors that can retard wound healing.	1.5	CO2
Q9	Necrosis is ____ a) reversible. b) lack of oxygen to the tissue. c) not reversible. d) blebbing at the periphery.	1.5	CO2
Q10	Inflammation is ultimately needed to ____ a) increase chemical mediators at the site to vasoconstrict the area. b) increase platelets at the site for clotting. c) restore functional cells. d) prepare the site for healing.	1.5	CO2
Q11	Describe the structure of hemoglobin.	1.5	CO2
Q12	List the sequence of events involved in wound healing.	1.5	CO2

Q13	Why is Crohn disease more likely to cause intestinal obstruction than ulcerative colitis? a) Crohn disease is in the small intestine. b) Crohn disease causes granulomas to form in the submucosal layer. c) Crohn disease causes abdominal pain and watery diarrhoea. d) Crohn disease is exacerbated by certain foods, such as spicy foods.	1.5	CO3
Q14	Normal iron content in men is_____.	1.5	CO3
Q15	_____ is essential for vitamin B12 absorption in the ileum.	1.5	CO3
Q16	_____ is an example of a natural antimalarial drug.	1.5	CO3
Q17	Classify antiretroviral agents.	1.5	CO4
Q18	Incubation period of Hepatitis B is _____.	1.5	CO4
Q19	What is the best way of protecting against HIV? a) Vaccination for HIV. b) Birth control pills. c) Use a latex condom during sexual intercourse. d) B and C.	1.5	CO4
Q20	During the complex life cycle of the <i>Plasmodium sp.</i> that transmits malaria, transmission begins with which of the following? a) Gametocytes inside a female <i>Anopheles</i> mosquito reproduce sexually and produce infective sporozoites. b) A female <i>Anopheles</i> mosquito feeds on a person with malaria and ingests blood containing gametocytes. c) The parasites mature into tissue schizonts within hepatocytes and are released into the bloodstream 1 to 3 weeks later when the hepatocyte ruptures. d) When a female <i>Anopheles</i> mosquito infected with sporozoites feeds on another human, the sporozoites quickly reach the liver and infect hepatocytes.	1.5	CO4
Section B (4Qx5M=20 Marks)			
Q1	Define free radicles. State the mechanism of free radicles-based cell injury.	5	CO1
Q2	Discuss in detail the principles of wound healing.	5	CO2
Q3	Illustrate the role of vitamin B12 in megaloblastic anemia.	5	CO3
Q4	Write a short note on syphilis.	5	CO4
Section C (2Qx15M=30 Marks)			
Q1	Propose an assessment and therapy plan for the following case. The patient is a 28-year-old female who presents to the emergency department with a chief complaint of acute worsening of her asthma symptoms. She reports a history of asthma since childhood but mentions that her symptoms have been well-controlled for the past year. She now complains of severe shortness of breath, coughing, wheezing, and chest	15	CO3

	tightness that began yesterday evening and have progressively worsened. The patient denies any recent illnesses, exposure to known allergens, or changes in medication use.		
Q2	Propose assessment and treatment plan for following patient. The patient is a 30-year-old male who presents to the clinic with complaints of coughing, fever, and night sweats. He reports that he has been feeling unwell for several weeks and that his symptoms have been getting progressively worse. He also reports recent weight loss and fatigue. On examination, the patient appears ill and is coughing frequently. He has a fever and is sweating profusely. Lung sounds are abnormal, with crackles and wheezing heard upon auscultation.	15	CO4
Section D (2Qx10M=20 Marks)			
Q1	State the mechanisms of cellular apoptosis. Differentiate between necrosis and apoptosis.	10	CO1
Q2	Explain the diagnosis and management of gastroenteritis.	10	CO2