Graphic Era HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya 12 of 2011)
University under section 2(f) of UGC Act, 1956

End Term (Even) Semester Examination May-June 2025

Roll no.....

Name of the Program and semester: **B.Pharm. II Sem**
Name of the Course: **Pathophysiology (Theory)**
Course Code: **BP 204T**
Time: **3-hour**

Maximum Marks: 75

Note:
(i) This question paper contains three sections
(ii) All the sections are compulsory
(iii) All questions should cover COs of the course as per syllabus coverage.

Section-A

MULTIPLE CHOICE QUESTION — **20 X 1 = 20 MARKS**

S.N.	CONTENTS	CO's
1.	In which of the following adaptive changes is there a change in the phenotype of mature cells? a) Atrophy b) Hypertrophy c) Hyperplasia d) Metaplasia	
2.	Which of the following mediators is primarily responsible for vasodilation during acute inflammation? a) Interleukin-1 b) Tumor Necrosis Factor-alpha c) Histamine d) Bradykinin	
3.	What best distinguishes apoptosis from necrosis? a) Cell swelling b) Presence of inflammation c) ATP depletion d) DNA fragmentation without inflammation	CO-1
4.	Which feedback mechanism is used when the body increases red blood cell production at high altitudes? a) Positive feedback due to hypoxia b) Negative feedback due to increased CO_2 c) Feedforward system based on altitude d) Negative feedback to maintain erythropoietin	
5.	A 60-year-old patient presents with dyspnoea, fatigue, and peripheral oedema. Echocardiogram reveals reduced ejection fraction. What is the most likely diagnosis? a) Left-sided heart failure b) Right-sided heart failure c) Congestive heart failure d) Ischemic heart disease	CO-2
6.	Which of the following is the hallmark feature of Chronic Obstructive Pulmonary Disease (COPD)? a) Increased lung elasticity	

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	b) Reversible bronchoconstriction c) Decreased airflow due to airway narrowing and alveolar destruction d) Hyperactive immune response in alveoli	
7.	Which laboratory finding is most expected in acute renal failure (ARF)? a) Increased serum creatinine and urea b) Low urine protein c) Decreased potassium levels d) High glomerular filtration rate	
8.	Which of the following changes is commonly seen in long-standing hypertension? a) Hyperplastic arteriosclerosis b) Aneurysm of cerebral arteries c) Bronchiectasis d) Dilated cardiomyopathy	
9.	Which of the following is an example of an acquired hemolytic anemia? a) Glucose-6-phosphate dehydrogenase (G6PD) deficiency b) Hereditary spherocytosis c) Autoimmune hemolytic anemia d) Sickle cell anemia	
10.	A patient presents with polyuria, polydipsia, and unexplained weight loss. A random blood glucose test reveals a significantly elevated level. Which of the following hormonal deficiencies or resistance is the most likely underlying cause? a) Hypothyroidism b) Insulin deficiency or resistance c) Hyperthyroidism d) Growth hormone deficiency	
11.	A patient experiences recurrent, unprovoked seizures characterized by sudden loss of consciousness and generalized muscle contractions. This neurological disorder is most likely: a) Parkinson's disease b) Stroke c) Epilepsy d) Alzheimer's disease	CO-3
12.	A deficiency in which vitamin is commonly associated with megaloblastic anemia? a) Vitamin C b) Vitamin D c) Vitamin B12 d) Vitamin A	
13.	Jaundice, characterized by yellowing of the skin and eyes, is primarily caused by an accumulation of: a) Bile salts b) Bilirubin c) Albumin d) Lipase	CO-4

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14.	Rheumatoid arthritis is best described as: a) A wear-and-tear condition of the joints b) An autoimmune disease affecting the joints c) A metabolic disorder leading to uric acid crystal deposition d) A bone-thinning disease	
15.	The term "neoplasm" refers to: a) Inflammation of a tissue b) A new and abnormal growth of tissue c) The spread of infection d) The death of cells	
16.	Which of the following is considered a major etiological factor in the development of many cancers? a) Vitamin deficiency b) Bacterial infection c) Genetic mutations d) Low physical activity	
17.	Typhoid fever is typically caused by infection with the bacterium: a) Streptococcus pneumoniae b) Salmonella Typhi c) Mycobacterium tuberculosis d) Escherichia coli	CO-5
18.	The primary mode of transmission for tuberculosis is through: a) Contaminated food b) Direct contact with skin lesions c) Airborne droplets d) Insect vectors	
19.	Which of the following sexually transmitted infections is often asymptomatic in women? a) Gonorrhea b) Syphilis c) Trichomoniasis d) Genital warts	
20.	Which of the following STIs is caused by a virus? a) Syphilis b) Gonorrhea c) Chlamydia d) AIDS	

Section B

Short Questions: Attempt any seven questions. **7x5 = 35 marks**

S.N.	QUESTIONS	CO's
1.	Explain Cell adaptation, point of no return in cellular adaptation and their types with tabular representation?	CO 1
2.	State clear mechanism of Cellular Inflammation & infection with well labelled diagram?	CO 1
3.	A person is smoking from last 1 year and develop difficulty in breathing with wheezing sound and fatigue with nausea? Explain the pathophysiology with well labelled diagram?	CO2

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4.	Illustrate various cardiovascular disease mentioning definition, pathophysiology, examples, and clinical symptoms. A well labelled diagram is required for each disease.	CO 2
5.	Describe in brief about the anemia where Ferritin is required with flow chart?	CO 3
6.	If a person is having degradation of dopaminergic neuron in nigrostriatal region which disease arise. Explain the pathophysiology involved.	CO 3
7.	A person develops challenges through stress and oncogenes in hepatic area develop. Which cancer will erupt. Explain whole condition as a clinical Pharmacist?	CO 4
8.	Differentiate between Crohn's Disease & Ulcerative colitis with tabular representation?	CO4
9.	Describe Urinary Tract Infection, Typhoid & tuberculosis in detail?	CO 5

Section C

Long questions: Attempt any two questions **2x10 = 20 marks**

SN	QUESTIONS	CO's
1	Write various terms in brief: Calcification and their type, Cell Death Acidosis & Mitochondrial Damage with well labelled diagrammatic representation?	CO1
2	Which anemic condition arises due to mutational changes in 11 & 16 chromosomes. Explain in brief?	CO2
3	Explain the pathophysiology of Diabetes (IDDM & NIDDM). Also make diagram of Transverse section of Pancreas?	CO3