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

Sessional I (Even) Semester Examination, March 2025

Roll no.....

Name of the Course and semester: **B. Pharm (II semester)**
Name of the Paper: **Pathophysiology (Theory)**
Paper Code: **BP 204T**

Time: 1:30 hours **Maximum Marks: 30**

Note:
(i) This question paper contains two sections.
(ii) All the sections are compulsory.

Section-A

Q1. Multiple choice questions (attempt all questions) **10 X 1 = 10 Marks**

1. Which of the following best defines homeostasis? **(CO1)**
   a) The body's ability to maintain a stable internal environment
   b) The process of cell division
   c) The formation of new cells
   d) The increase in metabolic rate
2. Which of the following is NOT a common cause of cellular injury? **(CO1)**
   a) Hypoxia
   b) Nutritional imbalances
   c) Excessive exercise
   d) Chemical agents
3. What type of cellular injury leads to the leakage of intracellular enzymes into the bloodstream? **(CO1)**
   a) Necrosis
   b) Hyperplasia
   c) Metaplasia
   d) Hypertrophy
4. Metaplasia refers to: **(CO1)**
   a) A decrease in cell size
   b) An increase in the number of cells
   c) The replacement of one cell type with another

d) The presence of an abnormal growth

5. Which electrolyte imbalance is characterized by low calcium levels in the blood? **(CO1)**
   a) Hyperkalemia
   b) Hypocalcemia
   c) Hyponatremia
   d) Hypermagnesemia

6. Which of the following is the main cause of ischemic heart disease? **(CO2)**
   a) Hypertension
   b) Atherosclerosis
   c) Diabetes mellitus
   d) Stroke

7. Which of the following is NOT a symptom of chronic kidney disease (CKD)? **(CO2)**
   a) Anaemia
   b) Bone disorders
   c) Polyuria
   d) Hyperkalaemia

8. Which inflammatory cell is primarily involved in asthma pathogenesis? **(CO2)**
   a) Neutrophils
   b) Eosinophils
   c) Basophils
   d) Macrophages

9. Which laboratory marker is most used to assess kidney function? **(CO2)**
   a) Serum creatinine
   b) Serum glucose
   c) Albumin
   d) Hemoglobin

10. What is the primary cause of atherosclerosis? **(CO2)**
    a) Bacterial infection
    b) Plaque buildup in arteries
    c) Low blood pressure
    d) Increased lung capacity

Section-B

I. Short type (attempt any two out of three) **2 X 5 = 10 Marks**

1. Explain Atrophy, Hyperplasia, Metaplasia, Dysplasia and Hypertrophy with well labelled diagram? **(CO1)**
2. Compare Dystrophic Calcification and Metastatic Calcification with well labelled diagram? **(CO1)**
3. Illustrate the pathological aspect of Angina, myocardial infarction? **(CO2)**

Section-C

II. Long type (attempt any one out of two) **1 X 10 = 10 Marks**

1. A cell exposed to stress; it undergoes cell adaptations process in which five types of cellular adaptations occur. Make a tabular representation elaborating five types of cellular adaptations with neat and labelled diagram? **(CO1)**
2. A person is smoking for 2 months regularly but he/she stopped smoking. But after a break of 6 months, he/she started smoking frequently and experience chronic asthma. Explain the cell inflammation process during the span of 2 months and pathology of chronic asthma? **(CO 2)**