[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5281 **L**

Unique Paper Code : 3184000027

Name of the Paper : Pathological Basis of Disease (GE)

Name of the Course : **Common Program Group (B.Sc. (H) Biomedical Sciences)**

Semester : VIII (NEP-UGCF)

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **five** questions in all.
3. Question no. **1** is compulsory.
4. Subparts of the questions should be attempted together.
5. Draw illustrations or diagrams wherever necessary.

Q1.

A. Define: (Any four) (2x4=8)
   i. Chemotaxis
   ii. Karyorrhexis
   iii. Anaplasia
   iv. Biopsy
   v. Embolus

B. Justify / Explain the following (Any four) (2.5X4=10)
   i. Inflammation is considered as a protective response of body.
   ii. ESR is an indicator of inflammation.
   iii. Shock is circulatory failure.
   iv. Tumors are said to be clonal.
   v. Thrombus develops frequently after surgery.

C. Differentiate between (3X4=12)
   i. Acute and Chronic inflammation
   ii. Stable and Labile Tissues
   iii. Reversible and irreversible injury
   iv. Benign and Malignant neoplasm

Q2. Write short notes (5,5,5)
   i. Hallmarks of cancer
   ii. Probable fate of a thrombus
   iii. Role of extra cellular matrix in wound healing

P.T.O.

Q3.
(a) Write a detailed note on the importance of molecular diagnostic techniques in medicine with reference to PCR based assays. (8)
(b) What do you understand by cellular adaptations? Give a note on physiological and pathological conditions leading to hypertrophy and atrophy. (7)

Q4.
(a) Regeneration of the liver is a classic example of repair by regeneration. Taking the liver as an example, elaborate upon the mechanism of tissue regeneration. (8)
(b) What do you mean by oncogenes? What role do they play in tumor initiation and progression? (7)

Q5.
(a) Define necrosis. Describe the different morphological patterns of necrosis with examples and morphological features? (8)
(b) Discuss various immunological assays for detection of disease. (7)

Q6.
(a) Chronic inflammation is characterized by leucocyte infiltration, tissue damage and fibrosis. In the light of the given statement, elaborate upon the role of several cell types and molecular mediators involved in the process. (8)

(b) Give a well labelled schematic for (3.5X2=7)
i. Healing by second intention
ii. Leukocyte recruitment