

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5014

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. Extravasation
- ii. Pyknosis
- iii. Fever
- iv. Haemorrhage
- v. Histopathology

B. Justify / Explain the following (Any four)

(2.5X4=10)

- i. Early detection of cancer improves treatment outcomes.
- ii. Injury to heart or brain is irreversible.
- iii. A burn patient needs to be adequately rehydrated.
- iv. Angiogenesis is essential for repair.
- v. Excessive free radicals are deleterious to cells.

C. Differentiate between

(3X4=12)

- i. Transudate and Exudate
- ii. Quiescent and Labile tissues
- iii. Apoptosis and Necrosis
- iv. Adult and Embryonic stem cells

Q2. Write short notes

(5,5,5)

- i. Liver cirrhosis
- ii. Different stages of shock
- iii. Granulomatous inflammation

P.T.O.

Q3.

- (a) PCR is considered a sensitive technique for detection of disease. Discuss its advantages over traditional diagnostic methods. (8)
(b) Define edema and explain its causes, types and pathological significance. (7)

Q4.

- (a) Discuss the pathways of spread of cancers. What is the significance of a sentinel lymph node in the spread of cancer? (8)
(b) Discuss the sequence of events in haemostasis and thrombosis. (7)

Q5.

- (a) Write a detailed essay on the molecular mediators of inflammation. Explain their sources, mechanisms of action, and role in determining the morphological effects and systemic manifestations of inflammation. (8)
(b) Describe different biochemical assays used for urine and blood testing. (7)

Q6.

- (a) Give a note on the pathological and physiological conditions, which lead to tissue hypertrophy, atrophy and metaplasia? (8)
(b) Give a well labelled schematic for (3.5X2=7)
i. Mitochondrial pathway of apoptosis
ii. Healing by 1st intention