

GUJARAT TECHNOLOGICAL UNIVERSITY**B. Pharmacy Sem-III Examination December 2009****Subject code: 230005****Subject Name: Pathophysiology****Date: 23 / 12 / 2009****Time: 12.00 – 3.00 pm****Instructions:****Total Marks: 80**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Explain the cellular and molecular mechanism of reversible and irreversible cell injury due to hypoxia/ischaemia. **06**
(b) Define apoptosis. Describe causes, molecular mechanism and importance of apoptosis. **06**
(c) Define and classify amyloidosis. Write a note on localised amyloidosis **04**
- Q.2** (a) Enumerate cell and plasma derived inflammatory mediators. Describe the role of different systems in generation of plasma derived mediators **06**
(b) Enlist the various inflammatory cells and discuss their role in inflammation. **06**
(c) Discuss in detail about wound healing process. **04**
- Q.3** (a) Discuss the pathogenesis, clinical manifestations and diagnosis of AIDS. **06**
(b) Discuss the etiology and pathogenesis of B-cell mediated hypersensitivity reactions with suitable examples. **06**
(c) Explain the role of cyclin/cdks in cell proliferation. **04**
- Q.4** (a) Define autoimmunity and classify autoimmune disease. Write a note on SLE. **06**
(b) Discuss the cells of immune system and their function. **06**
(c) Define and classify cellular adaptations. Write the causes of atrophy and hyperplasia. **04**
- Q.5** (a) Classify environmental and nutritional disease. Write a note on nutritional disease. **06**
(b) Discuss the role of cytokines and free radicals in different phase of inflammation. **06**
(c) Describe the principles of transplantation and mechanism of allograft rejection. **04**
- Q. 6** Write Short Notes of the following: **(Any Four)** **16**
a) Biological effects of radiation
b) Vascular events in acute inflammation
c) Extracellular matrix
d) HLA system and its importance
e) Carbon monoxide poisoning
- Q.7** Differentiate the following: **16**
a) Apoptosis and Necrosis
b) Dystrophic and Metastatic calcification
c) Chemotaxis and Phagocytosis
d) Acute and Chronic inflammation
