Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph SEM-III Examination- Dec.-2011

Subject code: 230005 **Date: 21/12/2011**

Subject Name: Pathophysiology

Time: 10.30 am-01.30 pm **Total marks: 80**

Instructions:

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

Q.1 (a) Explain the sequential changes in irreversible cell injury due to ischaemia/hypoxia. 06

(b) Write a note on free radical mediated cell injury. 05

(c) Enlist the processes of healing of skin wounds. Explain angiogenesis. 05

Q.2 (a) Define apoptosis. Explain the mechanism and pathological changes in apoptosis. 06

(b) Classify hypersensitivity reactions. Explain the mechanism involved in the Type I(anaphylactic) hypersensitivity. 05

(c) Define obesity. Give its etiology. What are the pathological and metabolic changes that take place in obesity. 05

Q.3 (a) Enlist the chemical mediators of inflammation and write a note on plasma derived mediators. 06

(b) Discuss the etiology of starvation and the metabolic changes taking place in starvation. 05

(c) Describe the process of exudation of leucocytes in the cellular events of acute inflammation. 05

Q.4 (a) Define autoimmunity. Discuss the pathogenesis and clinical manifestations of rheumatoid arthritis. 06

(b) Define inflammation. Explain the hemodynamic changes that take place in the vascular events of acute inflammation. 05

(c) Write a note on biological effects of radiation. 05

Q.5 (a) Explain the sequence of events in primary union of skin wounds. How does the secondary union of skin wounds differ from the primary union. 06

(b) Write a note on extracellular matrix. 05

(c) Discuss the etiology and pathogenesis of fatty liver. 05

Q. 6 (a) Define and classify amyloidosis. Explain the pathogenesis and clinical manifestations in amyloidosis. 06

(b) Explain the mechanism of allograft rejection. 05

(c) Write a note on vasoactive amines. 05

Q.7 (a) How is HIV transmitted. Discuss the pathogenesis and clinical manifestations of AIDS. 06

(b) Define atrophy. Enlist the physiological and pathological causes of atrophy. 05

(c) Write a note on protein calorie malnutrition. 05

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