

[LB 114]

**OCTOBER 2012**  
**M.D. DEGREE EXAMINATION**  
**BRANCH III – PATHOLOGY**  
**GENERAL PATHOLOGY**  
*Q.P. Code : 202011*

**Sub. Code: 2011**

**Time : 3 hours**  
**(180 Min)**

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

	<b>Pages (Max.)</b>	<b>Time (Max.)</b>	<b>Marks (Max.)</b>
<b>I. Essay:</b>			
1. Discuss role of Cytokeratin immune staining profiles in diagnostic anatomical pathology.	9	15	10
2. Define apoptosis. Enumerate its causes. Discuss mechanisms of apoptosis with suitable examples.	9	15	10
<b>II. Short Questions:</b>			
1. Discuss Fibrosis- Cancer link hypothesis.	3	8	5
2. Tabulate discriminant markers in reactive and neoplastic Mesothelium.	3	8	5
3. What are the functional consequences of mutation?	3	8	5
4. Outline the mechanisms of recognition and rejection of Renal allograft.	3	8	5
5. Describe a pulmonary infarct.	3	8	5
6. Discuss role of tobacco smoking in Lung Cancer.	3	8	5
7. Discuss mechanisms responsible for increased vascular permeability in acute inflammation.	3	8	5
8. Outline briefly stages of shock.	3	8	5
<b>III. Reasoning Out:</b>			
1. A 75 years old man admitted to the hospital with severe sub Sternal chest pain radiating to the arm and the jaw, died on day 5 of hospitalization due to ventricular arrhythmia. At autopsy, the left ventricle showed a pale yellow area of necrosis involving the posterior wall and the papillary muscles in the region of distribution of the right coronary artery. The type of necrosis is a) Caseous necrosis b) Coagulation necrosis c) Enzymatic fat necrosis d) Fibrinoid necrosis	5	10	5
2. A 20 year old women with AIDS presented with a painless Non pruritic erythematous lesions on the neck and the hard palate. Which of the following is likely to be the causative organism? a) Cytomegalovirus b) Epstein – Barr virus c) Human herpes virus d) Human Immunodeficiency virus	5	10	5
3. A Cholecystectomy was performed on a 50 year old female and as the wound was not healing properly she was asked about her diet. Though she consumed a diet high in protein she did not eat fruits or vegetable. Which of the following is the most likely cause for the poor wound healing? a) Decreased synthesis of granulation tissues			(PTO)

- |   |   |    |   |
|---|---|----|---|
| b) Decreased synthesis of type III collagen |   |    |   |
| c) Decreased tensile strength of collagen   |   |    |   |
| d) Defect in fibrillin in elastic tissue    | 5 | 10 | 5 |
4. A centrally located lung mass from a 60 year old chronic smoker shows a tumour composed of densely packed small round to spindle cells with numerous mitoses and areas of necrosis. Which of the following endocrinopathies is associated with this type of tumor?
- |  |   |    |   |
|--|---|----|---|
| a) Carcinoid syndrome                              |   |    |   |
| b) Hypercalcemia                                   |   |    |   |
| c) Polycythemia                                    |   |    |   |
| d) Inappropriate secretion of Antidiuretic hormone | 5 | 10 | 5 |

**IV. Very Short Answers :**

- |   |   |   |   |
|---|---|---|---|
| 1. What is kit gene?  | 1 | 4 | 2 |
| 2. What is Tumour lysis Syndrome?   | 1 | 4 | 2 |
| 3. What is Kernicterus?   | 1 | 4 | 2 |
| 4. Differentiate Haematuria and Hemoglobinuria  | 1 | 4 | 2 |
| 5. What are the factors that evoke acute inflammation on the gall bladder?                              | 1 | 4 | 2 |
| 6. What is the association between interstitial cells of Cajal & GISTs.                                 | 1 | 4 | 2 |
| 7. What is the significance of circulating tumour cells in the blood of patients with breast carcinoma? | 1 | 4 | 2 |
| 8. What is the inheritance pattern in autosomal dominant Disorders                                      | 1 | 4 | 2 |
| 9. What is the mechanism underlying increasing maternal age causing fetal trisomy                       | 1 | 4 | 2 |
| 10. What are second malignancies? Categorize them   | 1 | 4 | 2 |

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