**LIST OF QUESTIONS THE INTERMEDIATE EXAM 3**

**UNIT 1. SYSTEM OF HEMOPOIESIS AND IMMUNOGENESIS. BONE MARROW**

1. General morphofunctional characteristic of hemopoietic and immunocytopoietic organs.

2. Structure and development of bone marrow, features of blood supply.

3. Functions of bone marrow. Interaction of stromal and hemopoietic elements.

4. Bone marrow as a central immunopoietic organ. Its role in T- and B-lymphocytes precursors formation.

**UNIT 2. THYMUS. LYMPH NODE. SPLEEN**

1. Development and functions of thymus. Thymus as a central organ of Т – lymphocytes formation.

2. Structure and tissue composition of thymus cortex and medulla. Blood-thymus barrier.

3. Accidental and age-specific thymus involution.

4. Functions of lymph nodes and their participation in lymphocytopoiesis.

5. Structure of lymph nodes, Т - and В - zones.

6. Development and functions of spleen. Role of spleen in immune defence.

7. Structure and features of spleen blood supply, functional and morphologic differences from the lymph nodes.

8. Mucosa associated lymphoid tissue (MALT).

**UNIT 3. ENDOCRINE SYSTEM. CENTRAL ORGANS**

1. Morphofunctional characteristics of endocrine glands. Classification.

2. Structure and functional significance of hypothalamus. Neurosecretion. Releasing factors.

3. Development of hypophysis.

4. Adenohypophysis. Structural and functional features of chromophobe (chief), acidophilic and basophilic cells.

5. Structure and functions of the middle lobe of hypophysis.

6. Structure and functions of neurohypophysis.

7. Hypothalamic regulation of adenohypophysis.

8. Relations between hypophysis and other endocrine glands.

9. Structure and functions of epiphysis.

**UNIT 4. PERIPHERAL ENDOCRINE ORGANS**

1. Development, structure and significance of thyroid gland.

2. Ultrastructure of a follicular cell.

3. Secretory cycle of thyroid gland.

4. Development, structure and functions of parathyroid glands.

5. Development and structure of adrenal glands cortex and medulla.

6. Functional significance of each adrenal cortex zone.

7. Functional significance of adrenal medulla.

**UNIT 5. DIGESTIVE SYSTEM. ORAL CAVITY**

1. Development of alimentary canal.

2. General structure of alimentary canal wall.

3. Structural features of mucosa of the different parts of the oral cavity.

4. Tongue. Structure and functions.

5. Structure of tonsils. Significance of lymphoepithelial throat ring.

6. General characteristics of salivary glands.

7. Structure of parotid salivary gland.

8. Structure of submandibular salivary gland.

9. Structure of sublingual salivary gland.

10. Tooth structure. Hard and soft tooth tissues.

11. Development of enamel organ. Origin of dentin, enamel, cementum, pulp and periodontium formation.

12. Tooth blood supply and innervation. Tooth replacement.

**UNIT 6. OESOPHAGUS. STOMACH**

1. Development, functions and structural features of different parts of oesophagus.

2. Structure of the gastro-oesophageal junction.

3. Development, structure and functional significance of stomach.

4. Structure of stomach proper glands. Ultrastructure and functional significance of their cells.

5. Structural features of mucosa and its glands in cardiac and pyloric stomach regions.

**UNIT 7. INTESTINE**

1. Development, morphological and functional characteristics of the small intestine.

2. Structure of the of the small intestine wall.

3. Cellular composition of the surface epithelium of the villi and crypts.

4. Crypt-villus system as a structural-functional unit.

5. Histological features of the different parts of the small intestine.

6. Structure and functions of the large intestine.

7. Structure and role of vermiform appendix.

8. Structure of rectum.

9. Innervation of the small and large intestine.

**UNIT 8. LIVER AND PANCREAS**

1. Development, structure and functional role of the liver.

2. Structure of the classical liver lobule. Portal lobule. Hepatic acinus.

3. Interrelation between hepatic cords, bile canaliculi and sinusoidal capillaries.

4. Ultrastructure and histophysiology of a hepatocyte.

5. Blood supply of the liver.

6. Ultrastructure of endothelial and star-shaped (Kupffer’s) cells of a sinusoidal capillary of the liver.

7. Structure of the bile ducts and the gallbladder.

8. Development of the pancreas.

9. Functions, micro- and ultrastructure of the exocrine part of the pancreas.

10. Functions and structure of endocrine part of the pancreas.