**LIST OF QUESTIONS THE INTERMEDIATE EXAM 4**

**UNIT 1. INTEGUMENT. SKIN AND ITS APPENDAGES**

1. Sources of development and structure of skin.

2. Structure of epidermis of different topographic areas of the skin.

3. Structure of dermis.

4. Classification and structure of sebaceous and sweat glands.

5. Structure of hair shaft and root. Hair follicle.

6. Structure and development of nails.

**UNIT 2. THE RESPIRATORY SYSTEM**

1. Sources of the development and functions of the respiratory organs.

2. Airways (condacting portion). Structure of mucosa of the nasal cavity.

3. Structure of the wall of trachea and larynx.

4. Bronchial tree: structural changes of the bronchial wall due to gradual reduction of their diameter (changes of mucous glands, fibrouscartilaginous

membrane).

5. The respiratory part. Structure of the acinus.

6. Structure of the alveolar wall. Air-blood barrier. Gas exchange.

**UNIT 3. URINARY SYSTEM**

1. Development of the urinary system.

2. General plan of renal structure. Components of a nephron. Types of nephrons.

3 Microscopic and ultramicroscopic structure of renal body. Filtration barrier.

4. Microscopic and ultramicroscopic structure of proximal part of nephron.

5. Structure of loop and distal part of nephron. Functions.

6. Structure and functions of collecting tubules.

7. Renal endocrine system. Juxtaglomerular and prostaglandin apparatus.

8. Structure of ureter.

9. Structure of the urinary bladder.

**UNIT 4. MALE REPRODUCTIVE SYSTEM**

1. Male reproductive organs. Development and functions.

2. Testis structure and functions.

3. Structure of seminiferous tubule.

4. Spermatogenesis phases and location of developing germ cells in seminiferous tubule.

5. Structure and functions of epididymis.

6. Structure of ductus deferens wall.

7. Structure of prostate and bulbourethral glands. Functional significance. Age-related features.

**UNIT 5. FEMALE REPRODUCTIVE SYSTEM. THE OVARIES. CORPUS LUTEUM**

1. Development of organs of female reproductive system.

2. Ovary structure and functions.

3. Oogenesis.

4. Development and structure of the primary, secondary and tertial (graafian) ovarian follicle.

5. Structure of atretic follicle.

6. Development of corpus luteum.

7. Ovarian endocrine role.

8. Ovarian cycle.

9. Hypothalamic-pituitary regulation of ovary function.

**UNIT 6. UTERINE TUBES (OVERDUCTS). UTERUS. MAMMARY GLAND**

1. Structure and functions of the uterine tubes.

2. Uterus wall structure in different parts.

3. Menstrual cycle and its phases. Features of endometrium structure in different cycle phases.

4. Development, structure and functions of mammary gland.

5. Histofunctional changes in mammary gland in different cycle phases and during pregnancy.

6. Mechanisms of lactation regulation.

**UNIT 7. HUMAN EMBRYOLOGY. EMBRYO DEVELOPMENT**

1. Notion about phylogenesis, ontogenesis and embryogenesis.

2. Compound components of development.

3. The basic periods of the embryo development.

4. A structure of human spermium.

5. A structure of ovum.

6. Fertilization.

7. Cleavage of the human zygote. Its features and duration. Structure of human blastule.

8. Implantation and its mechanisms.

9. Gastrulation and features of its stages, their duration.

10. Concept about a differentiation, integration and determination.

11. A differentiation of germ layers (ecto-, meso- and endoderm).

12. Histo - and organogenesis.

**UNIT 8. HUMAN EMBRYOLOGY. PROVISIONAL ORGANS**

1. Notion of extraembryonic organs.

2. Sources of development and a structure of amnion. Functions.

3. Sources of development and a structure of yolk sac. Functions.

4. Sources of development and a structure of allantois. Functions.

5. Trophoblast and chorion formation.

6. Structure of the fetal and maternal parts of placenta. Functions.

7. Notion of the critical periods in embryonal (antenatal) and postnatal development. Influence of exo- and endogenous factors on the

embryo development.