

Документ подписан простой электронной подписью  
 Информация о владельце:  
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 Должность: ректор  
 Дата подписания: 18.07.2025 08:21:16  
 Уникальный программный ключ:  
 e3a68f3eaa1e62674b54f4998099d3d6bdcf836

## Diagnostic testing

### ***HISTOLOGY, CYTOLOGY, EMBRYOLOGY***

#### ***Terms 2<sup>nd</sup>, 3<sup>rd</sup>***

Qualification	Specialist
Specialty	31.05.01 General Medicine
Form of education	Full-time
Designer Department	Department of Pathophysiology and General Pathology
Graduate Department	Internal Diseases

### ***TERM 2***

Competence	Tasks	Possible answers	Complexity type
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 1. THE CYTOPLASM CONSISTS OF THE FOLLOWING STRUCTURES	1) karyoplasm, karyolemma, chromatin, nucleolus 2) hyaloplasm, karyoplasm, cytoskeleton 3) hyaloplasm, organelles, inclusions 4) submembrane support-contractile apparatus, hyaloplasm, organelles 5) glycocalyx, hyaloplasm, support-contractile apparatus	low
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 2. ORGANELLES OF THE CELL ARE DIVIDED INTO	1) protein, non-protein, mixed 2) general, special; membrane, non-membrane 3) general, special, mixed; membrane, non-membrane 4) general, special; membrane, non-membrane, mixed 5) temporary, permanent	low
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 3. WHAT KIND OF EPITHELIUM IS CALLED SINGLE-LAYERED?	1) in which not all cells are connected to the basement membrane 2) in which all cells are connected to the basement membrane 3) in which cells are not connected to the basement membrane 4) keratinizing 5) transitional	low
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 4. WHICH EXOCRINE GLANDS ARE CALLED COMPOUND?	1) multicellular, with branched end sections 2) with alveolar-tubular end sections and unbranched excretory duct 3) with tubular end sections and unbranched excretory duct 4) multicellular, with branched excretory duct 5) multicellular	low

GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 5. T-LYMPHOCYTES UNDERGO ANTIGEN-INDEPENDENT DIFFERENTIATION IN	1) lymph nodes 2) thymus 3) spleen 4) appendix 5) tonsils	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 6. CHARACTERIZE HUMAN GASTRULATION	1) occurs after implantation by delamination, migration and invagination 2) occurs before implantation by delamination, migration and invagination 3) occurs in parallel with implantation by delamination, migration and invagination 4) occurs in parallel with implantation in two phases by delamination, then migration and invagination 5) occurs after implantation by delamination, migration and epiboly	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 7. NAME THE PROCESSES BY WHICH THE EMBRYO ESTABLISHES A CONNECTION WITH THE MOTHER'S BODY (UTERUS)	1) gastrulation, placentation 2) implantation; placentation 3) placentation, histogenesis 4) fertilization, placentation 5) placentation, intussusception	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 8. THE EMBRYOBLAST SERVES AS A SOURCE OF ... FORMATION	1) chorion and allantois 2) chorion 3) embryonic body, amnion and yolk sac 4) embryonic body, amnion, yolk sac and allantois 5) amnion, yolk sac and allantois	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 9. NAME THE PERIOD OF EMBRYOGENESIS IN WHICH THE TRANSITION FROM THE UNICELLULAR STAGE OF DEVELOPMENT TO THE MULTICELLULAR STAGE OCCURS	1) fertilization 2) gastrulation 3) histogenesis 4) cleavage 5) ontogenesis	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 10. WHICH ORGANS CONTAIN DENSE FORMED FIBROUS CONNECTIVE TISSUE?	1) skeletal muscles 2) tendons, skin 3) ligaments, skin 4) ligaments, tendons 5) hematopoietic organs	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 11. DESCRIBE THE STRUCTURE OF CARTILAGE AS AN	1) periosteum, outer general plates, layers of poorly differentiated and differentiated cartilage 2) periosteum, layers of poorly differentiated and differentiated cartilage	medium

	ORGAN	3) perichondrium, outer general plates, layers of poorly differentiated and differentiated cartilage 4) perichondrium, outer general plates, layer of differentiated cartilage 5) perichondrium, layers of poorly differentiated and differentiated cartilage	
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 12. WHERE ARE THE CELLS LOCATED THAT REGENERATE BONE TISSUE AFTER BONE FRACTURES?	1) in the osteon canal perivascularly, in the cambial layer of the periosteum, in the endosteum 2) in the osteon canal perivascularly, in the fibrous layer of the periosteum, in the endosteum 3) in the cambial layer of the periosteum, in the endosteum 4) in the osteon canal perivascularly, in the endosteum 5) in the osteon canal perivascularly, in the cambial layer of the periosteum, in the intercalated plates	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 13. WHAT STRUCTURES DOES THE MYOFIBRIL SARCOMERE CONSIST OF?	1) half of I-band, A-band and another half of I-band 2) Z-line, half of I-band, A-band, another half of I-band, second Z-line 3) A-band, I-band, two Z-lines 4) A-band, Z-line and half of I-band 5) I-band, Z-line and half of A-band	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 14. REPARATIVE REGENERATION OF SKELETAL MUSCLE TISSUE OCCURS DUE TO	1) only intracellular regeneration 2) only due to cellular regeneration 3) due to a combination of intracellular and cellular regeneration processes 4) does not occur at all 5) occurs only in early postnatal ontogenesis by intracellular regeneration	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Indicate one correct answer</i></b> 15. DESCRIBE THE STRUCTURE OF UNMYELINATED NERVE FIBER	1) one axial cylinder, myelin sheath, neurilemma, basement membrane 2) several axial cylinders, myelin sheath, basement membrane 3) one axial cylinder, glial limiting membrane, basement membrane 4) one axial cylinder, glial limiting membrane, myelin sheath, basement membrane 5) several axial cylinders suspended on mesaxons, lemmocyte cytoplasm, basement membrane	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Give the correct answer</i></b> 16. SEVERAL MONTHS AFTER ABDOMINAL SURGERY, THE PATIENT COMPLAINS ABOUT UNPLEASANT SENSATIONS IN THE ABDOMINAL CAVITY AND DIGESTION		high

	IMPAIRMENT. THE DOCTOR SUSPECTS THE DEVELOPMENT OF ADHESION PROCESS IN THE AREA OF SURGICAL INTERVENTION. DISRUPTION OF WHICH EPITHELIUM REGENERATION CAUSES THE FUSION OF PERITONEAL LAYERS?		
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Give the correct answer</i></b> 17. N EXAMINATION OF THE PATIENT REVEALED AREAS OF INCREASED KERATINIZATION OF THE EPIDERMIS. WHAT CELLULAR DIFFERONS (CELLULAR LINES) ARE PRESENT IN THIS EPITHELIUM?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Give the correct answer</i></b> 18. ATHEROSCLEROTIC PLAQUES ARE FOUND ON THE INNER SURFACE OF VESSELS. WHAT TYPE OF EPITHELIUM IS IMPAIRED IN FUNCTIONING?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Give the correct answer</i></b> 19. WHAT TYPE OF CLEAVAGE IS CHARACTERISTIC OF THE HUMAN ZYGOTE?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b><i>Give the correct answer</i></b> 20. IN THE EARLY STAGES OF DEVELOPMENT OF THE MAMMALIAN EMBRYO, A TROPHOBLAST IS FORMED. WHAT TISSUE IS FORMED FROM IT IN THE PLACENTA?		high

### **TERM 3**

Competence	Tasks	Possible answers	Complexity type
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 1. WHAT STRUCTURE DOES THE AIRWAY END WITH?	1) terminal bronchiole 2) respiratory bronchiole 3) respiratory bronchiole 4) alveolar bronchiole 5) small caliber bronchi	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 2. WHICH CELLS PERFORM THE STEM CELL FUNCTION IN THE EPITHELIUM OF THE TRACHEAL MUCOSA?	1) goblet 2) ciliated 3) endocrine 4) non-ciliated 5) basal	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 3. TASTE BUDS ARE CONTAINED IN THE FOLLOWING PAPILLA:	1) filiform papillae 2) circumvallate 3) filiform, fungiform, circumvallate 4) fungiform, foliate, circumvallate 5) all papillae of the tongue	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 4. WHAT TYPE OF CAPILLARIES ARE IN THE LIVER?	1) continuous 2) fenestrated 3) sinusoidal 4) lacunar 5) mixed	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 5. WHICH STRUCTURE IS THE MORPHOFUNCTIONAL UNIT OF THE ENDOCRINE PART OF THE PANCREAS?	1) pancreatic lobule 2) pancreatic acinus 3) terminal secretory section 4) pancreatic islet 5) pancreatic acinus, intercalated and interacinar excretory ducts	low
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 6. WHAT ARE THE MORPHOFUNCTIONAL CHARACTERISTICS OF THE PAROTID SALIVARY GLAND?	1) complex, branched, mucous-proteinaceous, two types of terminal sections 2) complex, branched, protein-mucous, two types of terminal sections 3) complex, branched, mucous-proteinaceous, three types of terminal sections 4) complex, unbranched, proteinaceous, two types of terminal sections 5) complex, branched, proteinaceous, one type of terminal sections	medium
GPC-5.1 GPC-5.2	<b>Indicate one correct answer</b> 7. WHAT IS THE	1) oblique, longitudinal 2) oblique, circular, longitudinal	medium

GPC-5.6	CORRECT SEQUENCE (FROM THE INSIDE TO THE OUTSIDE) OF THE LAYERS OF THE MUSCULAR COAT OF THE STOMACH?	3) circular, longitudinal 4) circular, oblique, longitudinal 5) circular, longitudinal, oblique	
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 8. WHAT PROCESSES OCCUR IN THE RED BONE MARROW?	1) formation of erythrocytes, granulocytes, platelets 2) formation of B-lymphocytes and precursors of T-lymphocytes 3) transformation of precursors of T-lymphoblasts into T-lymphocytes 4) reproduction of T- and B-lymphocytes and their specialization into effector cells 5) formation of erythrocytes, granulocytes, platelets, B-lymphocytes and precursors of T-lymphocytes	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 9. WHAT IS THE OVARIAN CORTEX?	1) loose fibrous irregular connective tissue with blood vessels and nerves 2) a set of follicles and corpora lutea at different stages of development 3) a set of corpora lutea at different stages of development 4) a set of corpora alba and atretic follicles 5) a set of primordial follicles	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 10. THE STRUCTURE OF THE OVIDUCT IS CHARACTERISTIC	1) presence of mucous, submucous, muscular and adventitial membranes 2) presence of mucous, muscular and adventitial membranes 3) presence of mucous, muscular and serous membranes 4) presence of mucous, submucous, muscular and serous membranes 5) presence of mucous, submucous, muscular and adventitial membranes	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 11. THE CENTRAL ORGANS OF THE ENDOCRINE SYSTEM INCLUDE	1) parathyroid gland, adrenal gland, pineal gland 2) hypothalamus, pineal gland, pituitary gland 3) thyroid gland, thymus, islets of Langerhans of the pancreas 4) endocrine parts of the gonads, adrenal medulla 5) adrenal cortex, diffuse endocrine system	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 12. HOW ARE ARTERIES CLASSIFIED BY MORPHOLOGICAL FEATURE?	1) muscular, non-muscular 2) muscular, non-muscular, muscular-elastic 3) muscular, elastic and mixed types 4) fibrous, muscular, elastic 5) fibrous, muscular, non-muscular, elastic	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 13. WHAT ARE THE SOURCES OF HEART DEVELOPMENT?	1) mesenchyme 2) endoderm and mesenchyme 3) parts of the visceral leaf of the splanchnotome and ectoderm 4) parts of the visceral leaf of the	medium

		splanchnotome and mesenchyme 5) parts of the parietal leaf of the splanchnotome and mesenchyme	
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 14. THE BLOOD-ENCEPHALIC BARRIER IS	1) perivascular space 2) a set of components of the capillary wall, glial elements and their derivatives, providing selective penetration of various substances to neurons 3) neurohemal organ 4) terminal expansion of neurocyte axons 5) a set of components of the capillary wall	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Indicate one correct answer</b> 15. CYTOARCHITECTONICS OF THE CEREBRAL CORTEX IS	1) regular arrangement of Betz cells 2) regular arrangement of nerve fibers of the cortex 3) regular arrangement of neurons of the cortex 4) regular arrangement of neuroglia 5) regular arrangement of stellate cells	medium
GPC-5.1 GPC-5.2 GPC-5.6	<b>Give the correct answer</b> 16. WHICH CELLS IN THE TESTIS ARE THE MAIN PRODUCERS OF TESTOSTERONE?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b>Give the correct answer</b> 17. WHICH HORMONE CAUSES THE ONSET OF THE SECRETORY PHASE OF THE MENSTRUAL CYCLE?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b>Give the correct answer</b> 18. WHICH PART OF THE NEPHRON HAS A BRUSH BORDER?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b>Give the correct answer</b> 19. WHEN A PERSON HAS CHILLS, SO-CALLED "GOOSEBUMPS" APPEARS. WHAT IS THE STRUCTURAL BASIS OF THIS PHENOMENON?		high
GPC-5.1 GPC-5.2 GPC-5.6	<b>Give the correct answer</b> 20. WHAT IS THE PROCESS OF DESTRUCTION OF OVARIAN FOLLICLES CALLED?		high