

Документ подписан простой электронной подписью  
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## Test task for diagnostic testing in the discipline:

### BIOMEDICAL TECHNOLOGIES, SEMESTER 9

Code training area	31.05.01 Medical business
Orientation (profile)	Medical business
study	Full
Department	Pathophysiology and General Pathology
Graduate Department	Internal Diseases

Tested competence	Task	Answer options	Type of question complexity
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 1. mRNA 5' -GAU GCA CGC UAG GUU UUA GCG-3' encodes a polypeptide chain with the amino acid sequence	A) Ser-Pro-Cys-Thr-Met-Asp-Leu B) Asp-Ala-Arg-Tyr-Val-Leu-Ala C) Asp-Ala-Arg-Thr-Met-Asp-Leu	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 2. A mutation has occurred in the coding sequence 5' -CAG AAT ACC TGA TTG ATA GCA-3', the mutant sequence has the form 5' -CAG AAT ACT GAT TGA TAG CAT-3' Determine the nature of the mutation:	A) deletion B) nonsense C) Reading frame shift	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 3. For DNA polymerase to work, you must have:	A) single-stranded template DNA B) initiating codon C) double-stranded site at the 3' end of the molecule D) 4 types of deoxytriphosphates E) tRNA	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 4. Which of the following functions does m-RNA perform?	A) transfer of amino acids to ribosomes B) rewriting and transfer of information from DNA C) formation of ribosomes D) all listed functions	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 5. DNA molecules are not characterized by the property	A) self-duplication B) denaturation C) recombination of genes	low

		D) repair	
GC-1 GPC-9 PC-8. PC-10.	<b>Specify all the correct answers</b> 6. The following enzymes are involved in DNA repair:	A) peptidyltransferase and peptidyltranslase; B) exo-and endonucleases; C) DNA-dependent-RNA polymerase; D) DNA polymerase; E) nucleosidase; F) DNAligase.	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 7. The recognition stage involves:	A) the enzyme ARS-aza; B) DNA-dependent-RNA polymerase; C) nucleoside triphosphates - ATP, GTP, TTP, CTP; D) ATP; E) aminoacyl-tRNA; F) t-RNA.	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 8. I-RNA maturation includes:	A) modification of the 3-end by oligoadenylate splicing олигоаденилата; B) addition of methylated guanine to the 5-end; C) limited proteolysis; D) 5-end capping; E) modification of the 3-end by oligoadenylate use addition; F) 3-end capping.	low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 9. The discovery of a gene means:	A) determination of its localization on the cytogenetic map B) determination of its localization on the map of microsatellite index markers C) cloning and sequencing of full-length cDNA D) cloning of genomic DNA overlapping the region of gene localization E) sequencing of the complete nucleotide sequence	of the low
GC-1 GPC-9 PC-8. PC-10.	<b>Specify one correct answer</b> 10. Intra-laboratory quality control includes the following stages of laboratory analysis:	a) pre-analytical b) analytical c) post-analytical d) all of the above is true e) all of the above is incorrect	average

GC-1 GPC-9 PC-8. PC-10.	<b><i>Specify all correct answers</i></b> 11. The PCR method can be used for	A) diagnosis of chromosomal disorders B) molecular identification of personality C) diagnosis of mutations in the genes of hereditary diseases D) diagnosis of infections E) diagnosis of defects in fetal intrauterine development	average
GC-1 GPC-9 PC-8. PC-10.	<b><i>Specify one correct answer</i></b> 12. Principles of intra-laboratory quality control:	a) pre-analytical b) analytical c) post-analytical d) all of the above is true e) all of the above is incorrect	average
GC-1 GPC-9 PC-8. PC-10.	<b><i>Specify one correct answer</i></b> 13. External quality control includes:	a) metrological control b) control of the use of the same research methods by different laboratories c) a system of measures designed to evaluate the method d) a system of objective verification of laboratory results carried out by an external organization in order to ensure comparability of results from different laboratories e) all of the above is incorrect	average
GC-1 GPC-9 PC-8. PC-10.	<b><i>Specify one correct answer</i></b> 14. The main tasks of the clinical and diagnostic laboratory are:	a) provision of clinical laboratory studies in accordance with the MO profile b) introduction of progressive forms of work, new methods c) providing advice to doctors of medical departments in the interpretation of laboratory data d) advanced training of laboratory personnel e) carrying out measures for occupational health and safety f) all of the above is correct	average

<p>GC-1 GPC-9 PC-8. PC-10.</p>	<p><b>Specify one correct answer</b> 15. The standard sample is:</p>	<p>a) a specially designed sample of a substance or material with metrologically certified values of certain properties b) control material obtained from the body, conducting quality control of measurements c) calibration material d) a sample of biomaterial with precisely defined parameters e) all of the above is true</p>	<p>average</p>
<p>GC-1 GPC-9 PC-8. PC-10.</p>	<p><b>Specify one correct answer</b> 16. Measurement reproducibility Measurement reproducibility is the quality of a measurement that reflects:</p>	<p>A. proximity of the results to the true value of the measured value B. proximity of measurement results performed under the same conditions C. proximity of measurement results performed in different conditions of the city proximity to zero systematic errors in their results</p>	<p>average</p>
<p>GC-1 GPC-9 PC-8. PC-10.</p>	<p><b>Specify one correct answer</b> 17. The control card is:</p>	<p>A. list of standard values B. procedure for manipulations during analysis C. calculation scheme for the results D. of the year graphical representation of comparable measured values as they are obtained E. all of the above</p>	<p>average</p>
<p>GC-1 GPC-9 PC-8. PC-10.</p>	<p><b>Specify one correct answer</b> 18. The function of the reference laboratory is:</p>	<p>A. statistical processing of results B. production of control materials C. performing routine blood tests D. attestations of control materials using the reference method E. when performing all the listed tasks</p>	<p>average</p>

GC-1 GPC-9 PC-8. PC-10.	<p><b><i>Specify one correct answer</i></b>  19. The main requirement for inter-laboratory monitoring:</p>	A. the analysis of control samples is carried out separately from the analyzed samples B. the analysis of control samples is carried out by the head of laboratory C. the analysis of control samples is included in the normal course of laboratory work. it is performed by any laboratory assistant D. all of the above is true	average
GC-1 GPC-9 PC-8. PC-10.	<p><b><i>Specify one correct answer</i></b>  20. For quality control of correctness, the following control materials are recommended:</p>	A. Water standards B. drain serum C. industrial serum with an unexplored content of substance D. industrial serum with a known content of substance E. all of the above	average