

Документ подписан простой электронной подписью  
Информация о владельце:  
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Должность: ректор  
Дата подписания: 10.06.2024 11:46:50  
Уникальный программный ключ:  
e3a68f3eaa1e62674b54f4998099d3d6bfdcf836

Diagnostic testing  
Discipline "Human Genetics"  
Term 5

Curriculum	31.05.01
Specialty	General Medecine
Form of education	Full-time
Designer Department	Morphology and Physiology
Graduate Department	Internal Diseases

## Section 1. (Term 5)

Competence	Task	Answers	Type of complexity
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  1. According to Mendel's second law genotypic ratio of is	1) 1:1; 2) 1:2:1; 3) 3:1; 4) 9:3:3:1;	low
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  2. After monohybrid cross F2 generation will have genotypic ratio of	1) 1:2:1; 2) 3:1; 3) 9:3:3:1; 4) 1:1;	low
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  3. Genotypic ratio of 9: 3: 3: 1 corresponds to	1) monohybrid cross with complete dominance; 2) monohybrid cross with incomplete dominance; 3) dihybrid cross with complete dominance; 4) dihybrid cross with incomplete dominance.	low
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  4. The chromosomal theory of inheritance was discovered by American geneticist	1) T. Morgan; 2) G. Mendel; 3) A. Weismann; 4) C. Correns.	low
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  5. Gene is:	1) protein region; 2) a species unit; 3) a unit of hereditary information; 4) part of the genome.	low
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  6. All genes located on the same chromosome stay together and form:	1) clutch; 2) allele; 3) linkage group; 4) allelic group.	medium

GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  7. Structure of DNA was discovered by:	1) C. Darwin and Wallace 2) M. Schleiden and T. Schwann 3) J. Watson and F. Crick 4) D. I. Mendeleev	medium
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Set up a correspondence of:</i>  8. Organism with genotype:  1. AABbcc  2. AABbCc.  3. AABBCc	The number of gamete types:  в) 1 а) 4 б) 2  г) 3	medium
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  9. Parents who have normal hearing (dominant trait) have a deaf child. The genotype of the parents corresponds:	1) AA x aa; 2) Aa x aa; 3) Aa x Aa; 4) AA x BB.	medium
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  10. The recessive hemophilia gene is located on the X chromosome. The father is hemophilic, the mother is not hemophilic (homozygous for this trait). The probability of having sons with hemophilia is	1) 75% 2) 50% 3) 25% 4) 0 %	medium
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  11. Find the complementary strand of the DNA molecule for G-C-T-A-A-T-C-C-G	1) C-G-A-U-T-A-G-G-C 2) C-T-A-U-U- G-G-C-G 3) G-C-A-T-T-A-G-G-C 4) C-G-A-T-T-A-G-G-C	medium
GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1	<i>Choose one correct answer:</i>  12. Nitrogenous bases of DNA are:	1) adenine, guanine, ribose, cytosine 2) adenine, guanine, thymine, cytosine 3) adenine, guanine, ural, cytosine 4) adenine, thymine, ribose, cytosine	medium
GPC-4.2	<i>Choose all correct answers:</i>	1) complete;	medium

<p>GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p>13. Genetic linkage can be:</p>	<p>2) incomplete; 3) fractional.</p>	
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Choose all correct answers:</i></p> <p>14. While complementary interaction of genes, a new quality of the trait will appear in individuals with the genotype:</p>	<p>1) aaBB. 2) Aabb. 3) AaBb.</p>	<p>medium</p>
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Choose all correct answers:</i></p> <p>15. Mutations can cause:</p>	<p>1) hereditary diseases; 2) spontaneous abortions; 3) congenital malformations; 4) oncological diseases.</p>	<p>medium</p>
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Set up a correspondence of:</i></p> <p>16. Types of genetic variability:</p> <p>1. Mutation. 2. Recombination.</p>	<p>Examples:</p> <p>2) translocation; 1) crossing over; 3) DNA repair.</p>	<p>high</p>
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Complete the sentence:</i></p> <p>17. Antioncogenes is</p>	<p>1) genes that cause unregulated cell division; 2) genes that control metabolism; 3) inactive genes for cell growth and differentiation; 4) genes that produse suppressor protein; 5) altered proto-oncogenes..</p>	<p>high</p>
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Complete the sentence:</i></p> <p>18. The mother has blood type O, the child has blood type B. A father can't have the following blood type genotypes</p>	<p>1) <math>I^A I^A</math> and <math>I^B i^0</math>; 2) <math>I^A I^A</math> and <math>i^0 i^0</math>; 3) <math>i^0 i^0</math> and <math>I^A I^B</math>; 4) <math>I^A I^A</math> and <math>I^B I^B</math>.</p>	<p>high</p>

<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Choose one correct answer:</i></p> <p>19. Nucleic acids contain atoms:</p>	<p>1) C, H, O, N, P 2) C, H, O, N, S 3) C, H, O, P, S 4) C, H, N, P, S</p>	<p>high</p>
<p>GPC-4.2 GPC-4.3 GPC-5.2 GPC-7.2 PC-1.1 PC-9.1 PC-9.2 PC-10.1</p>	<p><i>Choose all correct answers:</i></p> <p>20. According to a social point of view, medical genetic counseling performs the following functions:</p>	<p>1) explanation in an accessible form of the meaning of medical genetic prognosis; 2) assistance in making the right decision about further childbearing; 3) help in implementing the right solution</p>	<p>high</p>