

MEDICAL UNIVERSITY – PLEVEN, BULGARIA**BIOLOGY EXAM**
Sample test
Specialty "Nursing"

1. Mesh connective tissue:
 - A. consists of cells and a large amount of intercellular matrix
 - B. is located only on the surface of the heart
 - C. makes up the lining of the vagina, oesophagus and oral cavity

2. Tissue with protective and nourishing function is:
 - A. smooth muscle tissue
 - B. blood
 - C. dense fibrous connective tissue

3. Choose the correct statement.
 - A. The uterus is a hollow, muscular organ with highly distensible walls.
 - B. Ovulation occurs every 15 days.
 - C. Fertilization takes place in the vagina.

4. The sinuses are:
 - A. openings in the bones of the skull
 - B. cavities in the bones of the skull
 - C. airways in the lungs

5. Blood cells are formed in:
 - A. the spinal cord
 - B. the bone marrow
 - C. the pancreas

6. Erythrocytes are:
 - A. a type of white blood cell
 - B. anucleated
 - C. about 200 μm in size

7. The larynx is:
 - A. an extension of the oesophagus
 - B. composed of 6 paired bones
 - C. a voice-forming organ

8. The absorption of digested nutrients occurs mainly in the:
 - A. colon
 - B. small intestine
 - C. bladder

9. The cell bodies of intermediate neurons are located in the:
 - A. anterior (ventral) horns of the spinal cord
 - B. posterior (dorsal) horns of the spinal cord
 - C. occipital lobes of the hindbrain

10. Enzymes:
 - A. are composed of deoxyribonucleic acids
 - B. have an active protective function
 - C. have catalytic function

11. Tetanus is a disease that:
 - A. affects a particular type of white blood cell
 - B. affects the nervous system
 - C. is sexually and by blood transmitted

12. Prions are the causative agents of:
 - A. AIDS
 - B. polio
 - C. Creutzfeldt-Jakob syndrome and mad cow disease

13. The bacteria are:
 - A. prokaryotes
 - B. eukaryotes
 - C. viruses

14. The bacteria are:
 - A. multicellular
 - B. autotrophs
 - C. parasites and saprophytes

15. What of the following conditions is an example of enzymopathy?
 - A. Sickle cell anemia
 - B. Albinism
 - C. Klinefelter's syndrome

16. The haploid chromosome set in humans consists of:
 - A. 46 chromosomes
 - B. 22 autosomes and one sex chromosome
 - C. 23 chromosome pairs

17. Transcription is:
 - A. a doubling of the DNA molecule
 - B. protein biosynthesis
 - C. biosynthesis of RNA

18. The breakdown of the nucleolus and nuclear membrane occurs during:
 - A. prophase
 - B. metaphase
 - C. telophase

19. Mitotic division results in:
 - A. 2 cells with a haploid set of chromosomes
 - B. 2 cells with a diploid set of chromosomes
 - C. 4 cells with a haploid set of chromosomes

20. The gametes formed by an individual with genotype PpQq are:
- A. PQ, Pq, pQ, pq
 - B. Pq, pQ, pq
 - C. pQ, PQ
21. Chromosome mutation involve:
- A. change in the number of chromosomes
 - B. breakage of a chromosome fragment
 - C. change in the nucleotide sequence of a gene
22. The phenomenon of multiple allelism results from:
- A. genomic mutations
 - B. chromosomal mutations
 - C. gene mutations
23. The karyotype of an individual with Turner syndrome is denoted as:
- A. 45 XO
 - B. 47 XXY
 - C. 46 XO
24. Primary spermatocytes are:
- A. diploid
 - B. haploid
 - C. heterozygous
25. Internal fertilization:
- A. is a characteristic of all echinoderms
 - B. is a characteristic of plants only
 - C. can also take place in an aquatic environment
26. Genetically identical offspring is a result from:
- A. ovulation
 - B. sexual reproduction
 - C. asexual reproduction
27. Spermatogenesis is a type of:
- A. mitosis
 - B. gametogenesis
 - C. organogenesis
28. Acrosoms are observed in which cells?
- A. Oocytes
 - B. Spermatozoa
 - C. Spermatogonia
29. What are the two main properties of the nerve tissue (neurons)?
30. What are the monomers of proteins called?

Answers:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A	B	A	B	B	B	C	B	B	C	B	C	A	C	B	B	C	A	B	A	B	C	A	A	C	C	B	B

29. The nerve impulses generation and conduction

30. Amino acids