



BIOLOGY – A4

Applicant's first name.....Middle name.....Surname.....

1	The T-lymphocytes are responsible for: A) cellular immunity B) agglutination C) antibody defense D) detoxification	A
2	Choose a distinct plant cell organelle: A) plastid B) nucleus C) Golgi apparatus D) endoplasmic reticulum	A
3	The cell theory was first postulated by: A) Robert Hooke B) William Harvey C) Ernst Müller D) Matthias Jakob Schleiden	D
4	The chromosomal mutations arise through: A) loss of one nucleotide C) interchange of one nucleotide with another B) breaking apart of a chromosome D) inclusion of a superfluous nucleotide	B
5	Which one of the following endocrine gland /hormone pairs does NOT match? A) adenohipophysis – thyrotropin C) pancreas – glucagon B) testicle – testosterone D) neurohipophysis – lutropin	D
6	Slender extensions of the plasma membrane that increase the surface area for absorption are: A) mitochondria B) microfilaments C) vacuoles D) microvilli	D
7	Which organelle contains strong hydrolytic enzymes? A) the ribosome B) the lysosome C) the vacuole D) the Golgi complex	C
8	Among the forms of Homo sapiens we include: A) Homo neanderthalensis C) Homo erectus B) Ramapithecus D) Australopithecus	A
9	Prokaryotes include: A) yeasts B) protozoa C) bacteria D) green algae	C
10	A haematocrit is a measure of: A) blood volume C) total number of blood cells B) volume percentage of red blood cells D) number of white blood cell	B
11	The ability of a nerve or muscle cell to respond to a stimulus is called: A) excitability B) lusitropy C) irritation D) incitability	A
12	Among the major milestones in human evolution we include: A) development of muscles C) bilateral body symmetry B) enlargement of brain D) segmentation of body	B
13	Cell wall of bacteria contains: A) Cellulose B) Glycogen C) Peptidoglycan (murein) D) Chitin	C
14	The most superior (rostral) part of the brainstem is the: A) Pons B) Medulla oblongata C) Midbrain D) Diencephalon	C

15	The human abdominal cavity contains the: A) spleen and kidneys B) heart and pericardium C) stomach and urinary bladder D) duodenum and ileum	D
16	Which one of the following is a part of the cardiovascular system of the Vertebrates? A) Liver sinusoids B) Loop of Henle C) Bile ducts D) Bronchioli	A
17	A genotype is: A) determined by phenotype B) is identical to genetic code C) a synonym for the karyotype D) an individual's collection of genes	D
18	In which of the cell cycle phases does nuclear DNA replicate? A) M B) S C) G2 D) G1	B
19	Which one of the following pairs is NOT properly matched: A) algae – simple plants B) yeasts – multicellular fungi C) mushrooms – saprophytic fungi D) Rhizopoda – Protozoa	B
20	Which gland produces triiodothyronine: A) adrenal medulla B) parathyroid gland C) thyroid gland D) adrenal cortex	C
21	Integumentary glands, that empty their secretions into hair follicles of the skin are: A) sebaceous glands B) ceruminous glands C) endocrine glands D) mammary glands	B
22	The main control centre for the lung ventilation is located in the: A) cerebellum B) medulla oblongata C) brain cortex D) spinal cord	B
23	The genotype of a recessive homozygous individual is: A) AaBb B) AABB C) Aabb D) aabb	D
24	The human systemic circulation ends in the: A) right atrium B) left ventricle C) right ventricle D) left atrium	A
25	Which one of the following pairs is properly matched: A) cartilage – synovial fluid B) muscles – fasciae C) joints – periosteum D) fat – osteoblasts	B