

Name: _____

Date: _____

MULTIPLE CHOICES. Choose the one alternative that best completes the statement or answers the question

1. Which cell organelle contains DNA?

- A: mitochondria
- B: nucleus
- C: chloroplast
- D: all of the above
- E: none of the above

2. Which hormone stimulates uptake of glucose into the cells?

- A: oxytocin
- B: testosterone
- C: epinephrine (adrenaline)
- D: growth hormone
- E: insulin

3. Which cell organelle creates the mitotic spindle?

- A: Golgi-apparatus
- B: endoplasmic reticulum
- C: mitochondrion
- D: centrosome
- E: lysosome

4. Why are lipids important in our body?

- A: they are parts of the cell membrane
- B: they store energy
- C: some hormones are lipids
- D: all of the above
- E: none of the above

5. A mother is homozygous for a recessively inherited disease. The father is heterozygous for the same disease. What is the chance that their child is going to be sick?

- A: 100%
- B: 75%
- C: 50%
- D: 25%
- E: 0%

6. Sickle cell anemia is caused by mutation in a

- A: rRNA gene
- B: myoglobin gene
- C: hemoglobin gene
- D: iron ion transporter gene
- E: it is not caused by mutation

7. Which statement is true about viruses?

- A: their material of inheritance is exclusively RNA
- B: they are obligate intracellular parasites
- C: they are prokaryotes
- D: they are living organisms
- E: plague is caused by them

8. Which is true about meiosis?

- A: it happens in the testis
- B: it produces haploid cells
- C: it happens in the ovaries
- D: all of the above
- E: none of the above

9. Which is NOT true about neurotransmitters?

- A: they can stimulate a nerve cell
- B: they can inhibit a nerve cell
- C: acetylcholine is one of them
- D: they are produced by glial cells
- E: serotonin is one of them

10. Lysosomes contain enzymes to break down

- A: proteins
- B: polysaccharides
- C: lipids
- D: nucleic acids
- E: all of the above

11. Which ion plays a direct role in oxygen transport?

- A: Ca^{++}
- B: Cl^-
- C: Fe^{++}
- D: Na^+
- E: K^+

12. It is true about red blood cells:

- A: some of them phagocytose bacteria
- B: B and T lymphocytes belong to them
- C: neutrophil granulocytes belong to them
- D: their number increases in various infections
- E: they are important in the transport of respiratory gases

13. What are the building blocks of proteins?

- A: amino acids
- B: monosaccharides
- C: nucleotides
- D: all of the above
- E: none of the above

14. Which is NOT part of the eye?

- A: lens
- B: cornea
- C: visual cortex
- D: iris

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E: retina

15. Which does NOT play a role in hearing?

- A: the ossicles (malleus, incus, stapes)
- B: the earlobe
- C: the cochlea
- D: the tympanic membrane
- E: the semicircular canals

16. Which hormone is secreted by the pancreas?

- A: calcitonin
- B: glucagon
- C: adrenaline (epinephrine)
- D: TSH (thyroid stimulating hormone)
- E: none of the above

17. Which chromosome number abnormality brings about Down syndrome (mongoloidism)?

- A: two X chromosomes
- B: three 21st chromosomes
- C: no Y chromosome
- D: three X chromosomes
- E: none of the above

18. Which part of the digestive system absorbs most of the food?

- A: mouth
- B: stomach
- C: small intestine
- D: large intestine
- E. pancreas

19. Which brain region regulates breathing?

- A: the medulla
- B: the thalamus
- C: the cerebellum
- D: the neocortex
- E: all of the above

20. If you do not take vitamine C for a prolonged period, you will get the disease

- A: scurvy
- B: anemia
- C: blindness
- D: schizophrenia
- E: none of the above