

General Biology (BIO 101)

1-Biology is the scientific study of

A-life

B-the environment

C-DNA

D-

ecosystems

2-science is

A-the inquiry-based effort to describe and explain nature .

b-the search for truth

c-an organized set of principles for how to behave ethically and morally

D-all of the above

3-what is the difference between discovery science and hypothesis-driven science ?

A-Discovery science * discovers * new knowledge , whereas hypothesis-driven science does not .

B-Discovery science is based on donative reasoning , whereas hypothesis-driven science is based on inductive reasoning .

C-Discovery science is mostly about : describing nature .
whereas hypothesis-driven science tries to explain nature.

D-Discovery science involves predictions about outcomes, whereas hypothesis-driven science involves tentative answers to specific questions .

4-You try to start your car , but it does not start . which of these is a hypothesis ?

A-My cars battery is dead

B-If recharge the battery. Then my car will start .

C-My car is too old to function properly.

D-What is wrong with my car ?

5-Which of the following is NOT a property of life ?

A-Populations of organists rarely change over time .

B-Living things exhibit complex but ordered organization.

C-Organisms take in energy and use it to perform all of life's activities .

D-Organisms reproduce their own kind .

6-Which of the following structures can perform all the activities required for life ?

A-DNA molecules B-Cells C-organelles D-Nuclei

7-A newly discovered multicellular organism obtains food by digesting dead organisms . Such an organism is most likely a member of the kingdom

A-Plantae B-Fungi C-Protista

8-Structures fits at all levels of organization in the organism is a basic concept of biology .

A-Species B-adaptation C-Function D-response

9-A jackrabbit can adjust its body temperature by regulating the amount of blood flowing through its

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A-Nose

B-feet

C-ears

D-eyes

10-Which of the following is NOT recycled but is lost from ecosystems?

A-nitrogen

B-energy

C-magnesium

D-carbon

11-Humans are

A-producers

B-producers and consumers

C-consumers

D-producers and decomposers

12-..... Composed of organs that carry out a function in an organism

A-tissues

B-cells

C-organ system

D-organelles

13-Life is organized in a hierarchical fashion. Which of the following sequences correctly lists that hierarchy as it increases in complexity?

A-ecosystem , population , organ system , cell , community , molecule , organ , organism , tissue

B-cell , molecule , organ system , organ , population , tissue , organism , ecosystem , community

C-organism , organ system , tissue , population , organ .
community , cell ,ecosystem , molecule

D-molecule , cell , tissue , organ , organ system , organism ,
population , community , ecosystem

14-What name is given to the functional compartments of a cell ?

A-genomes B-nuclei C-genes D-organelles

15-..... is an example of an element.

A-water B-carbon C-Glucose D- Salt

16-In order to have a positive charge , an atom must have

A-more protons than electrons

B-more electrons than protons

C-more neutrons than protons

D-more protons than neutrons

17-An atoms Are found in its nucleus.

A-neutrons and protons

B-protons only

C-neutrons and electrons

D-electrons , protons and neutrons

18-What name is given to bonds that involve the sharing of electrons ?

A-covalent

B-hydrogen

C-ionic

D-polar

19-The tendency of molecules of the same kind to stick together is called

A-bonding B-cohesion C-polarity D-adhesion

20-Which of the following is an acid ?

A-NaOH B-NaCl C-HCl D- CH₄

21-A single carbon atoms can form a maximum of covalent bond(s).

A-0 B-1 C-2 D-4

22-In the following reaction, galactose is a

Galactose + glucose \longrightarrow lactose + water

A-polysaccharide B-monomer C-polymer D-protein

23-Which of the following is an example of a polysaccharide ?

A-glucose B-starch C-maltose D-sucrose

24-Animals store carbohydrates as

A-cellulose B-glycogen C-starch D-maltose

25-By definition , what type of fatty acid has double bonds ?

A-steroid B- triglyceride C-unsaturated D-saturated

26-A specific stretch of DNA that programs the amino acid sequence of a polypeptide is a

A-gene B-protein C-nucleic acid D-enzyme

**27-Examine the two sugars in the following figure .
How do these two sugars compare ?**

A-Glucose has more hydrogen

B-Glucose has more double bonds

C-Glucose and fructose are isomers

D-They are structurally identical in every way .

28-One difference between eukaryotic and prokaryotic cells is that eukaryotic cells Prokaryotic cells

A-have DNA . which is lacking in

B-have membrane-enclosed structures called organelles ,
which are lacking in

C-have a plasma membrane , which is lacking in

D- have a nucleoid region , which is lacking in

29-Which of the following is a function of the plasma membrane ?

A-regulate the traffic of chemicals in and out of the cell

B-regulate the production of lipids in the cell

C-regulate the production of DNA in and out of the nucleus

D- regulate the production of proteins in the cell

30-what structures move protiens from the ER to the Golgi apparatus ?

A-transport proteins

B-central vacnoie

C-transport vesicles

D-nucleolus

31-plant cells , unlike , animal cells , are characterized by the presence of a

A-Cell wall and a contrachile vacuole

B-cell wall and a central vacuole

C-nucleus and a cell wall

D-nucleus and a contractile vacuole

**Which plant organelle is responsible for - 32
photosynthesis**

A-smooth endoplasmic reticulum

B-mitochondrion

C-ribosome

D-chloroplast

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