Questions for chapter 1 (Exploring Life)

1. Organ systems are made up of several

a. Organs

b. Tissues

c. Populations

d. Ecosystem

2. Tissues are made up of

a. Cells

b. Organs

c. Organ system

d. none

3. A group of organisms belonging to the same species forms

a. A community

b. A population

c. An ecosystem

d. Biosphere

4. The main difference between the prokaryotic and the Eukaryotic cells is

a. Size

b. Reproduction

c. Nucleus

d. Cytoplasmic membrane

5. Eukaryotes composed of

a. Single cells organisms only

b. Multicellular organisms only

c. Both single cell or multicellular organisms

d. None

6. The two major processes in ecosystem dynamics are

a. Matter and energy

b. Reproduction and adaptation

c. Water and nutrients

d. None

7. Life is divided into

a. 2 domains

b. 3 Domains

c. 4 Domains

d. 5 Domains

8. Hypothesis is considered as

a. a scientific fact

b. is an inductive reasoning

c. is a deductive reasoning

d. none

9. All the followings belong to the seven properties of life except:

a. Reproduction

b. Response to the environment

c. Energy processing

d. Immortality

10. In which of the following biological hierarchy level the properties of life emerges?

a. Molecules

b. Organelles

c. Cells

d. Organisms

3. A group of organisms belonging to the same species they form ………….

a. An Ecosystem

b. A Community

c. A Population

d. A Biosphere

4. A Tissue is made up of …………..

a. Similar cells

b. Different cells

c. Similar organs

d. Different organs

5. According to the biological the hierarchy, the biosphere is made up of………….

a. Individuals

b. Populations

c. Communities

d. Ecosystems

6. Cells are considered as ………………… تعتبر الخلايا

a. The functional unit of life

b. The structural unit of life

c. Functional and structural unit of life

d. None is correct

7. Prokaryotes are mainly……………

a. Unicellular organisms

b. Multicellular organisms

c. Unicellular and multicellular organisms

d. None is correct

8. The prokaryotes differs from the eukaryotes in that

a. Cell size

b. Cells Reproduction

c. Presence of nucleus

d. The cytoplasmic membrane

9. There are two major processes in the ecosystem dynamics, which are………

a. Reproduction and adaptation

b. Matter and energy

c. Water and nutrients

d. None is correct

10. Living organisms can be classified into …………

a. 2 domains

b. 3 domains

c. 4 domains

d. 5 domains

11. ………………… is considered as the unit of inheritance that transmitted from parents to offspring.

a. Genes

b. Chromosomes

c. Nucleotides

d. DNA

12. The Domain Eukarya consists of …………………….organisms

a. Prokaryotic

b. Eukaryotic

c. Both prokaryotic and eukaryotic

d. None

13. The domain Archaea consists of …………………….. organisms

a. Unicellular

b. Multicellular

c. Both unicellular and multicellular

d. None is correct

14. Energy enters an ecosystem as …………….. and exits as………………..

a. Thermal energy , light energy

b. Chemical energy , thermal energy

c. Kinetic energy , thermal energy

d. Light energy , thermal energy

15. …………….. controls the development of an organism

a. Gene

b. Chromosome

c. DNA

d. RNA

16. Taxonomy is the science which ………………. .

a. Study organisms at the cell level

b. Group and classify organisms

c. Study the ecosystems

d. None

17. Fungi are belong to ……………….. .

a. Domain Bacteria

b. Domain Archaea

c. Domain Eukarya

d. none

18. Qualitative data is …………………..

a. descriptive rather than measurements

b. measurements rather descriptive

c. organize in table and graphs

d. none

19. The use of data from discovery science to explain science is called ………….

a. Discovery science

b. Hypothesis based science

c. Deductive science

d. None is correct

20. …………………. is considered as a producer in an ecosystem?

a. Animals

b. Plants

c. Bacteria

d. Fungi

Questions of Chapter 2 (Molecules of cells)

1. Organic compounds are chemicals made up of ………

a. Nitrogen

b. Carbon

c. Phosphate

d. Silicon

2. Which one of these compounds is the simplest form of organic compounds? a. Ethan

b. Carbohydrates

c. Methane

d. none

3. polymers are large molecules consists of………

a. atoms

b. macromolecules

c. monomers

d. none

4. The compounds that contains only carbons and hydrogen are called…….

a. amino acids

b. fatty acids

c. Hydrocarbons

d. None of the above

5. Functional groups are groups of atoms that……

a. Participate in chemical reactions only

b. Determine the properties of the organic compound only

c. Participate in chemical reactions and determine the properties of organic compounds

d. None of the above.

6. Glucose belongs to……….

a. Polysaccharides

b. Amino acids

c. Monosaccharaides

d. Disaccharides

7. The disaccharide sucrose is made from combining both……..

a. Glucose and galactose

b. 2 glucose sugars

c. Glucose and fructose

d. None

8. Fats are lipids which is made of………

a. Fatty acids and amino acids

b. Fatty acids and glycerol

c. Amino acids and glycerol

d. None

9. Cholesterol is an example of ……

a. True fats

b. Phospholipids

c. Steroids

d. Proteins

10. Proteins are made of small subunits called

a. Fatty acid

b. Amino acids

c. Triglycerides

d. None

11. Each amino acid contains…..

a. Amino group, phosphate and R group

b. Fatty acid, glycerol

c. Amino group and phosphate group

d. None

12. Two amino acids monomers attached together form

a. Dipeptides

b. Polypeptide

c. Disaccharides

d. Polysaccharide

13. The primary structure of the protein results from…..

a. The folding and coiling of the polypeptide

b. The interactions between the R groups of various amino acids.

c. The amino acids sequence

d. None

14. Nucleic acids are composed of monomers called………..

a. Nucleotides

b. Nitrogen bases

c. Sugars

d. Amino acids

15. Each nucleotide unit is composed of…… a. Pentose sugar–phosphate -nitrogen base

b. Amino acid –phosphate. nitrogen base

c. Pentose sugar – nitrogen base

d. Pentose sugar –phosphate.

Another questions for Chapter 2 (Molecules of cells)

1. Which of the followings is the main energy source for the cell?

a. Fats and vitamins

b. Carbohydrates and minerals

c. Fats and carbohydrates

d. Minerals and vitamins

2. There are …………. different amino acids in nature.

a. 2

b. 12

c. 20

d. 32

3. What is the main component of plant cell wall?

a. Cellulose

b. Starch

c. Glycogen

d. Lignin

4. What type of lipids are the sex hormones (testosterone and estradiol)?

A. Steroids

B. Fatty acids

C. Phospholipids

D. None of the above is correct

5. The main component of organic compounds is……..

a. Nitrogen

b. Carbon

c. Phosphate

d. Silicon

6. Ribose sugar is….

a. Monosaccharaide

b. Disaccharide

c. Polysaccharide

d. Fatty acid

7. Polymers are large molecules consists of……..

a. atoms

b. macromolecules

c. monomers

d. none

11. RNA is translated into…….

a. DNA

b. Single strand RNA

c. Proteins

d. Fats

12. Fats are made of

a. Fatty acids and amino acids

b. Fatty acids and glycerol

c. Amino acids and glycerol

d. None

14. Proteins are made up of……..

a. Fatty acid

b. Amino acids

c. Triglycerides

d. None

18. Nucleotides are made up of …..

a. Pentose sugar – phosphate – nitrogen base

b. Amino acid –phosphate – nitrogen base

c. Pentose sugar – nitrogen base

d. Pentose sugar –phosphate.

19. Unsaturated fatty acids differ from saturated ones by having ………

a. Hydrogen atoms

b. Carbon atoms

c. double bonds

d. all the above