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Biology Job Interview Preparation Guide.

Question #1

Which is the largest digestive gland in our body?

Answer:-

liver

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Question # 2

The purine bases are:

Answer:-

- 1. adenine and guanine
- 2. adenine and cytosine
- 3. thymine and cytosine
- 4. uracil, thymine, and cytosine

Read More Answers.

Question #3

Four chromatids would be considered a:

Answer:-

- 1. mutation
- 2. non-disjunction
- 3. tetrad
- 4. synapses Answer: C

Read More Answers.

Question #4

Which of the following is NOT in the class insecta:

Answer:-

- 1. bees
- 2. moths
- 3. fireflies
- 4. spiders

Answer: D

Read More Answers.

Question #5

Plant cells differ from animal cells in that only plant cells possess:

- 1. a nucleus
- 2. mitochondria
- 3. a cell wall
- 4. lysosomes

Answer: C

Read More Answers.

Question #6

Which of the following has the lowest blood pressure:



Answer:-

- 1. aorta
 - 2. carotid artery
 - 3. femoral artery
 - 4. posterior vena cava

Answer: D

Read More Answers.

Question #7

Barbara McClintock is famous for discovering which of the following:

Answer:-

- 1. the structure of DNA with Watson and Crick
- 2. introns
- 3. jumping genes
- 4. exons

Answer: C

Read More Answers.

Question #8

Which of the following is NOT true of the Calvin-Benson Cycle:

Anewor.

- 1. it is also sometimes called the dark reactions of photosynthesis
- 2. it is also sometimes called the light independent reactions of photosynthesis

- 3. it converts energy trapped in the light reactions into sugar
- 4. it does not require stores of potential energy

Answer: D

Read More Answers.

Question #9

Proteins made up of two or more polypeptide chains are said to possess:

Answer:-

- 1. a resistance to denaturation
- 2. a quaternary structure
- 3. a tertiary structure
- 4. an enzymatic refractory period

Answer: B

Read More Answers.

Question # 10

The cytoskeleton of a cell is made of:

Answer:-

- 1. microtubules, lignin, and microfilaments
- 2. microtubules, intermediate filaments, and microfilaments
- 3. microtubules, flagellin, and microfilaments
- 4. pectins, intermediate filaments, and microfilaments

Answer: B

Read More Answers.

Question #11

A good light microscope has a resolving power of about:

Answer:-

- 1. 0.5 millimeters
- 2. 0 .5 nanometers
- 3. 0.5 microns
- 4. 5 nanometers

Answer: C

Read More Answers.

Question # 12

In which of the following areas of the human body is the olecranon process found:

Answer:-

- 1. hip
- 2. wrist 3. shoulder
- 4. elbow

Answer: D



Question #13

Darwins finches are an example of evolution of a species by the:

- 1. Hardy-Weinberg equilibrium
- 2. genetic drift
- 3. founder effect
- 4. macroevolution

Answer: C

Read More Answers.

Question # 14

Plant tissues are generally divided into four main types:

Answer:-

- 1. dermal, vascular, ground, meristematic
- 2. connective, vascular, ground, meristematic 3. vascular, ground, meristematic, mesenchymal
- 4. vascular, ground, meristematic, mesodermal

Answer: A

Read More Answers.

Question # 15

Commensalism is when:

Answer:-

- 1. both species benefit
- 2. neither species affects the other
- 3. one species benefits while the other is unaffected
- 4. both species are harmed

Answer: C

Read More Answers.

Question # 16

Which of the following responses do auxins NOT typically produce in plants:

- 1. cell elongation
- 2. fruit maturation
- 3. xylem differentiation
- 4. pollen tube growth

Answer: D

Read More Answers.

Question # 17

Which of the following is NOT true about toxic shock syndrome:

Answer:-

- 1. it is not known to occur in males
- 2. it is caused by a bacteria
- 3. up to 15% of healthy women harbor the causative germ in their vaginal flora
- 4. it is associated with infrequent changes of super absorbent tampons

Answer: A

Read More Answers.

Question # 18

What is water loss through the stomata of a plant called:

Answer:-

- 1. condensation
- 2. liquidation
- 3. transpiration
- 4. exchange

Answer: C

Read More Answers.

Question #19

Spallanzani, Pasteur, and Reti were:

- 1. Italian scientists
- 2. scientists involved with dispelling the theory of continuous generations
- 3. scientists involved with dispelling the theories of spontaneous generation
- 4. scientists who all began working as lens grinders



Answer: C

Read More Answers.

Question # 20

Which of the following is NOT one of Kochs Postulates:

- 1. the specific causative agent must be found in every case of the disease
- 2. the disease organism can be isolated in impure culture
- 3. inoculation of a sample of the culture into a healthy susceptible animal must produce the same disease
- 4. diseased organisms must be recovered from the body of the inoculated animal

Answer: B

Read More Answers.

Question # 21

Which of the following is most accurate about the pasteurization of milk:

Answer:-

- 1. it makes milk taste better
- 2. it kills all bacteria
- 3. it lowers the milk's pH
- 4. it reduces the population of bacteria

Answer: D

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Question # 22

What does the first word designate in the binomial nomenclature system?

Answer:-

Genus

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Question # 23

What kingdom of organisms does a professional Mycologist study?

Answer:-

Fungi

Read More Answers.

Question # 24

What kind of microscopy does the following describe:

Samples are treated with an electron-dense material and then cut into thin layers. While inside the microscopes column, electrons that are passed through the sample and differentially scattered to show a silhouetted image on a phosphorescent screen:

Answer:-

Transmission Electron Microscopy

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Question # 25

Which germ layer in mammals is predominantly responsible for forming the nervous system?

Answer-

Ectoderm

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Question # 26

What is the most common physiological term used to denote how the body maintains a stable internal environment in the face of a constantly changing external environment?

Answer:-

Homeostasis

Read More Answers.

Question # 27

Where is intracellular fluid normally found?

Answer:-

inside of cells

Read More Answers.



In 1884, the Danish microbiologist Hans Christian Gram invented the gram stain, which delineates the difference between what two general types of bacteria?

Answer:-

Gram Positive And Gram Negative

Read More Answers.

Question # 29

What are the main products of plasma cells called?

Answer:-

Antibodies

Read More Answers.

Question #30

This anatomical term means nearer the midsagittal plane:

Answer:-

Medial

Read More Answers.

Question #31

The gustatory system has to do mostly with what human sense?

Answer:-

Taste

Read More Answers.

Question #32

When the body is in a time of stress, which of the 2 divisions of the autonomic nervous system is primarily directing the response?

Answer:-

Sympathetic System

Read More Answers.

Question # 33

How many different cranial nerves are there in the human body?

Answer:-

12

Read More Answers.

Question #34

For a flower to be complete, it must possess what four types of floral appendages?

Answer:-

Sepals, Petals, Stamens, And Carpels

Read More Answers.

Question # 35

Biologists usually refer to the head of a tapeworm by what name?

Answer:-

Scolex

Read More Answers.

Question # 36

What morphological scientific name is given to a spherically shaped bacterium?

Answer:-

Coccus

Read More Answers.

Question # 37

What is the name of a graffian follicle after it releases an egg, turns into a yellow body, and begins to secrete progesterone?

Answer:-

Corpus Luteum

Read More Answers.



Which white blood cell is typically known as the bodys first line of defense:

Answer:-

Neutrophil

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Question #39

What is the botanical name for the horizontal stems that allow a plant to spread underground?

Answer:-

Rhizomes

Read More Answers.

Question # 40

Mendel did most of his original experimentation using this type of plant:

Answer:-

Pea

Read More Answers.

Question #41

Order the following from the part of the digestive tract nearest to the beginning to the part nearest to the end: jejunum, ileum, esophagus, duodenum?

Answer:-

Esophagus, Duodenum, Jejunum, Ileum

Read More Answers.

Question # 42

Bacteria are more likely used to produce which of the following:

Answer:-

- 1. gelatin
- 2. wine
- 3. pasteurized milk
- 4. vinegar

Answer: D

Read More Answers.

Question #43

Which of the following is NOT a nematode:

Answer:-

- 1. pinworm
- 2. hookworm
- 3. tapeworm
- 4. ascaris

Answer: C

Read More Answers.

Question # 44

Assuming a male mammal has an x-linked recessive gene which exhibits a certain characteristic phenotypic trait, which of the following is NOT true:

Answer:-

- 1. all of his daughters will be carriers
- 2. all of his sons will exhibit the trait
- 3. there is a 50% chance his daughters will pass the recessive allele to their sons
- 4. none of his sons will pass the recessive allele

Answer: B

Read More Answers.

Question # 45

Which of the following is MOST accurate for eukaryotic cells:

Answer:-

- 1. introns are spliced out of pre-mRNA
- 2. introns are spliced out of pre-DNA
- 3. exons are spliced out of pre-mRNA
- 4. exons are spliced out of pre-DNA

Answer: A

Read More Answers.



The tectorial membrane is found in which of the following anatomical structures of a human:

Answer:-

- 1. inner ear
- 2. eye
- 3. testes
- 4. ovaries

Answer: A

Read More Answers.

Question # 47

Plants gather wavelengths of light NOT absorbed by the main chlorophyll a and b through:

Answer:-

- 1. photosystem I
- 2. photosystem II
- 3. accessory pigments
- 4. carotenoids

Answer: C

Read More Answers.

Question # 48

Which of the following is not caused by a virus:

Answer:-

- 1. mumps
- 2. yellow fever
- 3. small pox
- 4. leprosy

Answer: D

Read More Answers.

Question #49

In the classification of organisms, four of the 5 Kingdoms are Animalia, Plantae, Fungi, and Protista. What is the fifth?

Answer:-

Monera

Read More Answers.

Question # 50

Order the following from the largest taxonomic group to the smallest group: order, genus, kingdom, class, family, species?

Answer:

Kingdom, Class, Order, Family, Genus, Species

Read More Answers.

Question # 51

The biological term for programmed cell death is:

Answer:-

Apoptosis

Read More Answers.

Question # 52

Which of the following fins is NOT found on fish:

Answer:-

- 1. pectoral
 - 2. lateral
- 3. dorsal
- 4. pelvic

Answer: B
Read More Answers.

Question # 53

In mammals, the embryos have a physiological connection to the mothers body during development. This is an example of:

Answer:-

- 1. viviparity
- 2. ovoviviparity
- 3. oviparity
- 4. parity

Answer: A



Read More Answers.

Question # 54

The following pathway, CO2 + H2O + energy yields (CH2O)n + O2, represents which of the following:

Answer-

- 1. cellular respiration
- 2. photosynthesis
- 3. an irreversible reaction
- 4. glycolysis

Answer: B

Read More Answers.

Question #55

George Gamow made a contribution to biology by correctly interpreting the:

Answer:-

- 1. X-ray crystallographic structure of DNA
- 2. existence of reverse transcriptase
- 3. minimum number of letters in the code for amino acids
- 4. existence of oncogenes

Answer: C

Read More Answers.

Question # 56

Which of the following accounts for the largest decline in death rate in the USA between the years 1900 and 1990:

Answer:-

- 1. accidents
- 2. cancer
- 3. cardiovascular disease
- 4. infectious disease

Answer: D

Read More Answers.

Question # 57

Physicians give patients immuno-suppressing drugs after an organ transplant to prevent:

Answer:-

- 1. infection
- 2. a graft verses host response
- 3. rejection of the transplant
- 4. viral infections

Answer: C

Read More Answers.

Question # 58

Which of the following does NOT directly function in the cytoskeleton:

Answer:-

- 1. microtubules
- 2. microfilaments
- 3. spectrin
- 4 actin

Answer: C

Read More Answers.

Question # 59

Stems grow longer by creating new cells at their tips, in a region known as the:

Answer:-

- 1. terminal division section
- 2. terminal mitotic
- 3. shoot apical meristem
- 4. apical terminus

Answer: C

Read More Answers.

Question # 60

In a typical cell, cytokinesis overlaps with:

Answer:-

1. S phase



- 2. metaphase
- 3. anaphase
- 4. telophase

Answer: D

Read More Answers.

Question #61

Francesco Redi is known for an experiment that refuted which of the following theories:

- 1. the theory of spontaneous generation
- 2. phlogiston theory
 3. the theory of bad humors
- 4. the theory that disease was caused by astrological events

Answer: A

Read More Answers.

Question # 62

The exchange of gases between blood and the tissue occurs normally in:

Answer:-

- 1. venules
- 2. arterioles
- 3. veins
- 4. capillaries

Answer: D

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Question #63

In the cell cycle, DNA synthesis occurs during:

Answer:-

- 1. mitosis
 - 2. G1
- 3. G2
- 4. interphase

Answer: D Read More Answers.

Growth and development are synonymous, respectively, with which of the following:

Answer:-

- 1. division and multiplication
- 2. multiplication and division
- 3. multiplication and differentiation
- 4. zygote and embryo Answer: C

Read More Answers.

Question #65

DNA is produced from RNA:

Answer:-

- 1. by reverse transcriptase
- 2. by an oligoside
- 3. by DNA polymerase
- 4. in yeast as a protective measure

Answer: A

Read More Answers.

Question # 66

Which of the following does NOT belong to the Class Arachnida:

Answer:-

- 1. spider
- 2. tick
- 3. mite
- 4. shrimp

Answer: D

Read More Answers.



Transfer RNA with an amino acid attached to it is called:

Answer:-

- 1. a charged tRNA
- 2. an amino acyl tRNA
- 3. a tRNA with an amino acid attached
- 4. t-primed RNA

Answer: B

Read More Answers.

Question #68

Which of the following is true about a brain cell from a normal individual human:

Answer-

- 1. some DNA sequences are present in multiple copies
- 2. most of the DNA codes for protein
- 3. most genes are transcribed
- 4. most genes are arranged in operon-like clusters

Answer: A

Read More Answers.

Question # 69

An example of negative feedback control is when:

Answer:-

- 1. the end product of a metabolic pathway inhibits an earlier reaction
- 2. the initial enzyme of a metabolic pathway inhibits a later reaction
- 3. the end product of a metabolic pathway stimulates an earlier reaction
- 4. the initial product of a metabolic pathway inhibits the next reaction

Answer: A

Read More Answers.

Question #70

Which of the following is the term for when a segment of a chromosome rotates 180 degrees and rejoins the same chromosome:

Answer:-

- 1. deletion
- 2. inversion
- 3. translocation
- 4. duplication

Answer: B

Read More Answers.

Question # 71

A newborn babys immunity, which is acquired from the mother, is often referred to as:

Answer:-

- 1. active immunity
- 2. passive immunity
- 3. bistander immunity
- 4. physical immunity

Answer: B

Read More Answers.

Question #72

What is the name of the inner surface of the myocardium that is lined with a layer of endothelial cells?

Answer:-

Endocardium

Read More Answers.

Question #73

Parkinsons disease is caused by a lack of this neurotransmitter in the brain:

Answer-

Dopamine

Read More Answers.

Question # 74

What reflex causes the extension of the big toe and fanning of the other toes when the bottom of the foot is stroked?

Answer:-

Babinski



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Question #75

In plants, this naturally occurring auxin has the abbreviation IAA:

Answer:-

indole acetic acid

Read More Answers.

Question #76

What is the vector for Rocky Mountain Spotted Fever?

Answer:-

The Tick

Read More Answers.

Question #77

What three main parts make up the carpel of a plant?

Answer:-

Stigma, Style, And Ovary

Read More Answers.

Question #78

What accessory organ allows bony fish to remain at a certain depth in the water without swimming?

Answer:-

Swimbladder

Read More Answers.

Question #79

In many arthropods, the segments of the body are grouped into 3 distinct parts. Name all three parts:

Answer:

Head,

Thorax, And Abdomen

Read More Answers.

Question # 80

Vibration of this membrane moves 3 small bones that span the cavity of the middle ear:

Answer:-

Tympanic Membrane

Read More Answers.

Question #81

Which is better to grow plants in Rock sand or soil?

Answer:-

When we grew plants inside, with no wind, and the plants in the rocks grew better than the plants that were growing from the sand and dirt from outside.

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Question #82

What happens when the cell membrane or plasma membrane ruptures or breaks down?

Answer-

When cell membrane ruptures Ions leek out and unless repaired in time the cell will die. As we know that the plasma membrane is not stationary, and it is made of lipids and protein, so when damage happens the cell repairs itself by producing new part like the damaged one that is why it is dynamic.

Read More Answers.

Question #83

What are analogies for mitochondria?

Answer:-

Well, as you know, the mitochondria are the producers of most of a cell's energy and the nucleolus creates ribosomes. The cell wall is only in a plant cell and is a rigid layer of non-living material that surrounds the cells of plants and some organisms.

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What is a terrestrial organism?

Answer:

'Terra' is the Latin word for earth. Therefore, an animal that lives on the surface of the earth is called terrestrial. This is the same root word as 'extraterrestrial' meaning an alien.

Read More Answers.

Question #85

What is the optimum temperature for catalyses?

Answer:-

For any chemical reaction, the reaction rate increases with temperature, so the higher the temperature, the faster the rate. For any enzymatic reaction, the reaction rate will increase with temperature until the temperature at which the enzyme begins to denature is reached, and this is the optimum temperature.

The denaturizing temperature depends on the composition of the protein (its amino acid sequence), which varies for catalyses from different organisms. Therefore, the answer to your question is that the optimum temperature is dependent on the source organism.

Read More Answers.

Question #86

How much salt is in the human body?

Answer:-

50 Kilo human has about 7 tablespoons of salt within him.

Read More Answers.

Question #87

What is the difference between an acid and a base?

Answer:-

Base is any thing, which has a capability to abstract a proton.

Using the simplest definition, an acid is something when added to water releases hydrogen ions (H+), also called protons. A base, or an alkali, is something that when added to water releases hydroxide (OH-) ions.

The strength of a basic (or alkaline) or acidic solution is measured using the pH scale. A pH of 7 is perfectly pure neutral water (neither acidic nor basic), and pH below 7 is acidic, and a pH above 7 is basic.

There is another definition, which says that an acid releases H+ and a bases remove H+ from water. This definition is a bit more general than the first one above. Note that releasing OH- is the same as removing H+. This is because when OH- mixes with H+, they form neutral H2O, and so for every OH- released, one H+ is removed by combining them into water.

The final definition of an acid and base is the most general, but the hardest to understand conceptually, and it is not always taught in high school because of this. According to this definition, acids are electron pair acceptors, and bases are electron pair donors.

Read More Answers.

Question #88

What is cell biology?

Answer:

Cell biology is the science of studying how cells function such as their reproduction and metabolism, their internal and external anatomy.

Read More Answers.

Question # 89

What is a recessive gene?

Answer:-

With the birth of a child, it gets its genes from both parents. Some genes 'override' other genes. Using hair color as example:

If one parent is blond (Pb) and one parent is black hair (Pd), blond would be the recessive gene, and dark would be the dominant gene. Meaning:

 $Pb \ x \ Pb = Blond \ Pd \ x \ Pd = Dark \ Pb \ x \ Pd = Dark \ Pd \ x \ Pb = Dark$

Recessive genes occur in the genotype (inside the body, disease, disorder) or fenotype (appearance, blue eyes brown eyes). In all other cases, the dominant gene will override the recessive gene.

Read More Answers

Question # 90

Does seed germination affect plant growth?

Answer:-

Germination does affect plant growth

Without germination in the plant, the plant is not able to grow. The germination is the beginning of life for the seed plant

However, the rate of germination is not directly related to rates of plant growth one can find speedy germinating seeds, which grow slowly and vice versa.

Read More Answers.

Question # 91

What is an analogy for a smooth endoplasmic reticulum?

Answer:

Endoplasmic reticulum (ER) is like a manufacturing plant, like a factory, where proteins and lipids are made. This is also where things are packaged into boxed and sent off to different places. In the cell the smooth ER is a network of membrane bound bodies which lack ribosomes (the molecules used in protein synthesis) and its



primary function is to modify, encapsulate and transport newly synthesized proteins and lipids which will be secreted or remain in the cytoplasm as membrane bound vesicles. The smooth ER can also be compared to a highway, or a protein and lipid highway, if you will. It is sometimes called the transitional ER because it contains exit sites from which transport vesicles carrying these proteins and lipids bud off for transport to the Golgi apparatus. It is usually prominent in cells that specialize in lipid metabolism and synthesis.

Read More Answers.

Question # 92

What are the examples of homeostasis?

Answer-

Regulation of body temperature, control of blood glucose levels, the regulation of salt and water balance

Read More Answers.

Question #93

How do you determine if a molecule is polar or non-polar?

Answer:-

A polar molecule is a molecule that has a net dipole moment due to its having unsymmetrical polar bonds.

Two factors go into determining if a molecule is a polar. To determine if a molecule (or ion) is polar or non-polar, you must determine both factors.

- 1) The polarity of the individual bonds in the molecule;
- 2) The shape or geometry of the molecule

First, to determine if a given individual bond is a polar, you need to know the electro negativity of two atoms involved in that bond. To find the electro negativities of all the elements, look at the periodic table (follow the link to the left of this answer under Web Links). If the electro negativity of the two atoms has a difference of 0.3 or less, then the bond is non-polar. If the electro negativity difference is greater that 0.3 but less than 1.7, then the bond is polar.

Once you know which bonds in the molecule are known as polar and which are non-polar, you must use the shape of the molecule. You need the shape because two polar bonds, if oriented correctly can cancel each other out (like two equally strong people pulling in opposite directions on a rope -- nobody moves). There are 3 possible outcomes:

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Question #94

How does caffeine effect plant growth?

Answer:-

Minerals like potassium are often found alongside caffeine when it occurs in plant sources like coffee beans, and that could help the plant grow faster. However, the caffeine itself would be unlikely to have any affect on the plant's rate of growth.

I tested it and the plant grew at normal rate but the leaves were more wrinkly and browner

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Question # 95

What are the names and uses of the various laboratory tools?

Answer:-

Tools include beakers, microscopes, tweezers, hot plates, lasers, voltmeters, test tubes, Erlenmeyer flasks, thermometers, test tube racks, Bunsen burners, crucibles, tripods and more. They are used to measure, observe and gather data for experiments, as well as to perform reactions and to heat things. More advanced laboratory equipment includes items such as spectrometers, centrifuges and chromatographs.

Safety Tools

- 1. Eye Wash: In case materials get into your eyes, use this to rinse them out
- 2. Safety Shower: In case materials get onto your clothing or body, use this to rinse them off

Read More Answers.

Question #96

Why mosquito bites and it causes itching?

Answer:-

A mosquito does not actually bite you, of course. It sucks your blood.

To help enable effective blood sucking, it first injects anti-coagulant saliva to stop the blood from clotting or forming a scab while it feeds. When the mosquito goes away, its saliva stays in the pocket under your skin.

Now comes the itchy part. Your body releases histamine to fight off a foreign substance. It is the same as an allergic reaction. The histamine causes swelling around the area and as a side effect, it itches.

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Question # 97

What are living and nonliving reservoirs?

Answer-

Viruses are both living as well as non-living. They have reservoirs of genes. A single nucleotide is a unit of gene. Viral genes make use of host raw material (non-living elements/organic moieties/ water etc.,) including elements to synthesize organic molecules or macromolecules. Subsequently, viruses replicate themselves thereby reproduce within the living cells. On crystallization, they become non-living and can stay in this state for years until they enter again into a living host to multiply. Certain plant viruses are transmitted to the progeny through seeds. Viruses evolve as any other living being. Therefore, now virus names are written in italics like binomial/trinomial names similar to scientific name of any other living organism i.e. Tobacco mosaic virus (read as italic).

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What is a characteristic feature of a carrier protein in a plasma membrane?

Answer:

Carrier proteins are globular proteins which are specific it their action and thus regulate the entry and exit of particles into the cell. They help in the conduction of ionic substances and polar substances.

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Question #99

What are some things that have algae in them?

Answer-

Yeast is considered Algae. The Research I have done says that Dairy Products have Algae.

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Question # 100

What is the natural habitat of E.coli?

Answer:-

The E.coli was first identified in the colon region of large intestine and so it was given the name "coli" (found in colon) they are coliforms. It luxuriously grows in our large intestine and it is an important normal microflora of human. It will not do any harm when present in intestine and if it enters the blood or other sites of the body, it causes urinary tract infection

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Question # 101

How do keep respiratory system healthy?

Answer:-

The circulatory system supplies food and oxygen to the body's cell. It carries away waste production of energy. The wastes must then be removed.

Read More Answers.

Question # 102

Who created the two-part naming system used in biology?

Answer:-

The scientific naming system that is used worldwide today was first devised by Swedish naturalist Carl Linnaeus in 1737. He proposed a two-part naming system, which classifies every living organism with a string of Latin and Greek identifiers. Full names are devised starting with kingdom and extending downward through phylum, subphylum, class, order, family, genus and species. The two-part name, or binomial name, consists of the genus and species of the organism and used to prevent the confusion that may arise with common names.

The binomial nomenclature (two-part name) of an organism belongs to a universal format: the genus of the organism is the first name, which is always capitalized, and acts as a noun. The species of the organism is always the second name, is minuscule (lower-case), and acts as an adjective. Take, for example, the cougar. The cougar's genus is Puma, and its species is known as concolor. The entire name would read as follows, Puma concolor or P. concolor for short.

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Question # 103

What is an organ that belongs to more than one organ system?

Answer:

One answer is the pancreas. It belongs to both the endocrine and digestive systems.

Another one is bone marrow. It is part of the skeletal and the circulatory system because it makes both red and white blood cells.

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Question # 104

Why do leaves change color?

Answer:-

Leaves are the food factories of plants. During the spring and summer, leaves are actively making food and they are filled with chlorophyll, which gives green color. As summer, ends and the days get shorter and cooler, food production stops and the leaves stop producing food. The chlorophyll disappears and they begin to change into the yellows, oranges, and reds that we see in autumn.

Read More Answers

Question # 105

Why would a tongue not detect mild sweetness after eating foods with high sweetness?

Answer:-

This happens because of the "desensitization" of sensory receptors on the sensory cells of your tongue. This phenomenon occurs in all of our senses, where a strong and continuous stimulus desensitizes us to the same stimulus, so that it is harder to detect. For example, this is how you adjust to new smells, or why it is harder to hear after attending a loud concert. It is part of how your body is able to adapt to new environments. The sensory cells of your sensory organs regulate and "desensitize― these receptors in multiple ways. For instance, sensory receptors on the cell surface can be deactivated or cells can internalize the receptors and degrade them, both of these events effectively reduce the number of functioning receptors on the cell surface and thus reduce its ability to detect a stimulus.

Read More Answers



Why do preserved foods not spoil?

Answer:

Plant and animal cells must stay in an isotonic, or neutral, solution to survive. When salt or sugar is added, many of the cells wither and die, and the bacteria cannot live on dead cells.

Sometimes they have agents added that do not allow bacteria and other microbes to colonize and grow on the food. Microbes like bacteria and fungus break down the food causing the spoilage.

There are bacteria and other microorganisms, which live in all sorts of environments. Some tolerate oxygen and some do not. Some tolerate salt and some do not.

There are certain limits or parameters outside of which most or no microorganisms can remain active, however this is theoretical. There have been microorganisms such as Archea living in thermal vents, hot springs, salt lakes, and other extreme environments for ages and ages.

Some microorganisms create "spores" which are like hard seeds, which can survive for many years under harsh conditions, waiting until conditions are right to germinate and become active again. One example of this is Bacillus Anthracis, the bacteria that causes Anthrax.

Read More Answers.

Question # 107

What is an analogy for microtubules?

Answer:-

Microtubules have two main functions in cells and in doing so act like a skeleton as well as like railroad tracks. Microtubules are the main structural component of the cytoskeleton in cells, which provides the cell with structure and rigidity and determines the shape of the cell. They also serve to transport vesicles and proteins within the cytoplasm through transport proteins called kinesins and dyneins, which act much like railroad cars.

Read More Answers

Question # 108

What is the tallness trait of a pea plant moving separately from the color trait an example of?

Answer:-

This is an example of Mendel's second law, the Law of Independent Assortment, which states that the appearance of one trait will not affect the appearance of another. Current understanding of genetic inheritance, however, has shown that this is not always the case because two genes, which are located close to each other on the same chromosome, will most likely be inherited together.

Read More Answers.

Question # 109

What are two things that enter the cell for cellular respiration?

Answer:-

Carbohydrate molecules and oxygen enter the cell during cellular respiration.

Read More Answers.

Question # 110

How does the structure of a crab relate to its habitat?

Answer-

Its hard exoskeleton protects it for most predators & keeps water off its flesh. The claws are used for mating duels & protection. The reason for so many legs is for grip on and off land.

Read More Answers.

Question # 111

What are blood enzymes?

Answer:-

Enzymes are proteins that carry out chemical reactions (as opposed to structural enzymes). Most of the detectable enzymes in the blood come from the various tissues and organs of the body. Abnormal levels may reflect problems with a particular organ.

The most common blood enzymes test is for liver enzymes. When the cells of the liver are damaged, enzymes can leak out and detected in the blood. Another common test measures enzymes from heart damage, such as from a heart attack.

Read More Answers.

Question # 112

How do organisms adjust to changes in temperature?

Answer:-

Some of the most common way for an organism to adjust to changes in body temperature is through perspiration or panting. As previously mentioned, this is all part of the balance mechanism known as homeostasis, which is usually defined as the "maintenance of a relatively stable, internal environment."

Read More Answers

Question # 113

What does an anther have on it?

Answer:

The anther is the part of the flower that holds the pollen. This and the filament both make up the stamen.



Question # 114

Do all vascular plants develop annual rings?

Answer-

Vascular plants are those, which have phloem and xylem structures within them to transport water and nutrients around the plant. Most of the plants you see around you are vascular. Think about grass or herbaceous plants - you will not find growth rings in those if you cut them through the middle.

Growth rings occur is plants with lignin in their stems (trees in other words). The rings are caused by the different rates of growth in summer and winter. In summer the tree grows quicker, the lignin fibers are less dense, and the ring is a bit lighter in color. In winter, growth is slower and the fibers are pack closer and appear darker.

Annual growth rings are near universal in the trees of the temperate regions. Trees growing in the tropics experience an even temperature environment over the year and rings are less pronounced or absent.

Read More Answers.

Question # 115

How does the odor of flower petals help pollination?

Answer:-

The purpose of the perfume is to attract a pollinator - insect, bat, bird or whatever. The reward for the pollinator is a meal of nectar, which is produced by the flower.

Read More Answers

Question # 116

Why does DNA twist?

Answer:-

If it did not twist, would you expect it to fit into the miniscule cell? As we all know, if we join all of the DNA molecules from a person's body end to end, we would get length three times the distance from the centre of the earth to the sun! Therefore, DNA does not have a choice but to follow the super solenoid structure. This is also aided by the purine-pyrimidine linkages, to balance the weight of DNA components. Why pressing down on the cover slip does not remove excess water. Because of Newton's Third Law of Motion: Every action has an equal an opposite reaction and hydraulic pressure. When you press down on the cover slip, the water underneath it pushes back against you with the same force that you are pressing down on it. If you want to get the water to move out from under the cover slip, you need to direct it to the side. One way to do this is to lift an edge and break the suction, then set it back down on one edge first to let the water run out, then press it down. This creates a side motion so the water does not push straight up into the cover slip, but pushes at an angle, which allows it to run out.

Read More Answers.

Question # 117

What are some examples of chemical and physical changes?

Answer:-

Chemical changes are irreversible changes such as combustion and frying an egg. Physical changes are reversible changes such as ice melting and deflating a ball.

Read More Answers.

Question # 118

What is the importance of genetics?

Answer:-

It also improves the human race is some cases such as the lately people being born without appendix.

Hitler kind had the idea of genetics in mind when he created his 'master race' of blue-eyed blonde hair people. As a result, today blue eyes are getting rarer and rarer as the green/brown eye gene takes over.

1 in 100,000 people on average have a mutation. Mutations are what cause evolution. If for example a baby were born with, a natural immunity to AIDS then that would be a beneficial mutation to human race. If that child grew up and had many children then eventually the gene would spread and one day all people would be immune to aids.

Read More Answers.

Question # 119

What is the movement of paramiciumcillia?

Answer:-

Paramecium: This large single-celled protist contains many, many short little "hair-like" structures called cillia that cover the entire cell. The cillia move like little oars that help the paramecium swim and gather food into its "food grove". The paramecium appears a light pink in color. It is known as a Ciliate.

Read More Answers

Question # 120

What are analogies for centrioles?

Answer:

A Centriole is like a straw because they both are tubes that let things get from one end to the other end.

The centriole has a round look to it because it is made from nine triplets of microtubules that make a straw-like (as said above) look.

Read More Answers.

Question # 121

Why do organisms live in certain places?

Answer:-



Think of that, the temperature difference in the desert is huge. So in order to survive, the cactus plant reduces heat gain and heat loss as well as water loss. (E.g. narrow pin shaped leaves, long extensive roots)

Read More Answers.

Question # 122

Why do substances react with each other?

Answer:-

Chemical reactions occur because the products of the reaction have less energy than the reactants (drive toward less energy). These reactions release energy into the environment, like the burning of a match. Chemical reactions also occur because the products are more random (less ordered) than the reactant (drive toward greater entropy).

Read More Answers.

Question # 123

What are the uses of formycin B?

Answer:-

Formycin B is a drug used to destroy of intestinal parasites.

Read More Answers.

Question # 124

How does iodine kill germs?

Answer-

The microbiocidal action of Iodine is due to the active form, I2, which is polarized by water and like all halogens (chlorine, fluorine, bromine, etc.), acts as an extremely potent oxidizer. Activated iodine (I2) reacts in electrophilic reactions with enzymes of the respiratory chain as well as with amino acids located in cell membrane and cell wall proteins. The well-balanced tertiary structure necessary for maintaining the respiratory chain as well as cell integrity is destroyed and the microorganism is irreversibly damaged.

Read More Answers.

Question # 125

What are the complementary base-pairing rules for biology?

Answer:

In DNA, Adenine bonds with Thymine, Cytosine bonds with Guanine. In RNA, Thymine is replaced with Uracil (bases capitalized for easy emphasis/reference, not grammar.)

Purines and Pyrimidines are two families of Nitrogenous bases.

In DNA:

Adenine and Guanine: Purines Cytosine and Thymine: Pyrimidines

Adenine bonds with Thymine and Guanine bonds with Cytosine.

A&T have 2 hydrogen bonds and G&C have 3 hydrogen bonds.

Read More Answers.

Question # 126

What is the difference between xylem and phloem?

Answer:-

Both xylem and phloem are vascular tissues found in a plant. Xylem is a tubular structure, which is responsible for water transport from the roots towards all of the parts of the plant. Phloem is also a tubular structure, which, on the other hand, is responsible for the transportation of food and other nutrients needed by plant.

Read More Answers.

Question # 127

Why is water conservation in c3 c4 and cam plants important?

Answer:-

Cam stands for Crassulacean acid metabolism.

C3 and C4 conserve less water than Cam plants.

Actually, C4 plant captures more carbon than C3 plant. In the struggle to reduce carbon dioxide concentration in the atmosphere, genetic scientists have modified some large-scale crops into C4 bases. Cam plant is wholly different from C3 and C4 and examples of are the cactus and other succulent plants in order to survive in dry dusty regions. In Cam plants, carbon fixation occurs at night while C3 and C4 plants carry out photosynthesis during daylights.

Read More Answers.

Question # 128

What does veterinary medicine have to do with physiology and biochemistry?

Answer:-

A lot of Physiology will teach about the function of animals and their parts. This is very important, so you know about the animals you take care of and about parts affected by certain illnesses and injury. Biochemistry is the chemical processes of living things- digestion, defecation, blood, etc.

Read More Answers.



What is the main difference between a bird heart and a mammalian heart?

Answer:

The bird heart has a single aortic arch on the right side of its body while the mammalian heart has one on the left.

Read More Answers

Question # 130

What are the lowest and highest temperatures humans can survive?

Answer-

Being in cold temperature air with proper shelter and clothing, humans can survive indefinitely, even if the temperature is below zero degrees. However, a person in regular clothing immersed in water just above freezing will last only a few minutes.

As for heat: A sauna can reach temperatures of close to 200 degrees, but since the air is around 10% humidity, it actually feels comfortable and has many healing properties. However, if the air is 90% humidity, then the safe temperature is more like around 110 degrees.

So maybe a better question to ask is at what temperature and humidity combinations are humans capable of surviving?

Read More Answers.

Question # 131

What has caused evolution?

Answer:-

- 1) Different individuals have different characteristics
- 2) these differences result in varying abilities to reproduce under local circumstances
- 3) Some of these differences are inherited
- 4) Those inherited differences that result in highly successful reproduction rates are the ones that will be present at higher percentages in the new generation.

Evolution is common sense but they have very close common ancestors. Now, think about evolution on a family, tribe, society level. Some individuals preserve there species line by being protectors or servants. (ex: ants, bees, certain species of birds) further ex: if a son helps raise 20 of his siblings but does not reproduce himself, then, the DNA from his parents will still be transferred in great abundance even if he doesn't reproduce at all. Sometimes behavioral evolution is harder to explain in only simple definitions. Think about it.

Read More Answers.

Question # 132

What are organelles, which carry out autophagy?

Answer:-

Autophagy, being the degradation of cytoplasmic components as well as other organelles, is generally done with the lysosomes. The lysosomes, contain enzymes (hydrolase and others) to digest these worn out, damaged, or infected parts, which keeps the cell healthy and clean. mTOR regulates this process (mammalian target of rapamycin). Lysosomes do carry out a similar procedure to autophagy. It is called autolysis, and that is when the lysosome, excretes all of its digestive juices into the cell. It is like a self-destruct and the entire cell is condemned to a digestive end. Do not worry it only applies to damaged cells.

Read More Answers.

Question # 133

What best describes the amoebas division?

Answer:-

- (1) It is a Mode of asexual account in which a single parent is involved. The amoeba cell, which is unicellular, divides into two daughter cells, which are identical. First, the nucleus divides, then the cytoplasm and then plasma membranes.
- (2) Sporulation when the environmental conditions are unfavorable, the amoeba cell secrets a 3 forming a cyst. This is called encystations. When are favorable the cell divides by multiple fission and form small pseudopodiospores the like totally wall breaks all the houses pseudopodiospores are released.

Read More Answers.

Question # 134

Are there ribosomes in a plant cell?

Answer:-

Yes, in fact there are ribosomes in both plant and animal cells.

That is right. Ribosomes are the site of synthesis of polypeptide chains; proteins are formed from polypeptide chains. Both animals and plants need proteins for many purposes, not least as enzymes.

There are also ribosomes in prokaryotic cells, but these are smaller. The ribosomes in prokaryotes have a sedimentation rate of 70S (Svedberg units); eukaryotes have 80S ribosomes.

They are the sites of protein synthesis, which makes them as important as other cell organelles.

Read More Answers.

Question # 135

What does Liquescence digestive enzyme do?

Answer:

It helps to normalize the secretion of digestive juices and enzymes in the gastrointestinal tract

Read More Answers.

Question # 136

Why is there little or no grass in the forest?

Answer:-



- 1. Due to the presence of the bushy trees close together in the forest, sunlight does not penetrate easily to the ground. This is not suitable condition for grass to grow
- 2. Large trees take up majority of minerals and water substance, little left for these green grasses to grow.
- 3. Roots of these trees hold up the soil so that it is difficult for grass to penetrate the soil.

Therefore, there is little or no grass in the forest with big trees close together. Otherwise, if trees are rare then we can find grass.

Question # 137

What is the purpose of DNA?

Actually, DNA makes you who you are. It has all your heredity info, like your hair color, your personality, etc. No two person's DNA is the same, not even twins The main role of DNA is to store information over long periods without any significant loss of information contained in it. It is the precursor for all the metabolic reactions taking place in our body (involved may be directly or indirectly). DNA is so important because it does lot of things to say if you were found dead with no ID or anything they could use your DNA to figure out who you were, DNA is your identity, and it confirms the colors and shapes of what makes up you. It also shows if you have any diseases like hemophilia.

Read More Answers.

Question # 138

What is the classification that divides orders?

Answer:-

Orders are divided into Families.

The hierarchy of classification of living things most generally used is, from broadest to narrowest:

- 1) Domain
- 2) Kingdom3) Phylum
- 4) Class
- 5) Order
- 6) Family
- 7) Genus
- 8) Species

Read More Answers.

Question # 139

What is reflexive memory?

Reflexive memory relies on the cerebellum and amygdala. Compare between aerobic respiration and anaerobic respiration. Aerobic respiration occurs in the presence oxygen, creates a maximum of 38 ATP, while anaerobic respiration occurs in the absence of oxygen, and creates a maximum of 2 ATP. Aerobic respiration has both substrate level and oxidative phosphorylation while anaerobic respiration has only substrate level phosphorlyation. Also, but use glycolysis. In anaerobic respiration, the final electron acceptor is an organic molecule such as pyruvate or acetaldehyde, but in respiration, the final acceptor is oxygen.

Read More Answers.

Question # 140

Why are calcium carbonate and carbon dioxide and carbon monoxide considered inorganic compounds?

Answer:-

"The name "organic" is a historical name, dating back to 19th century, when it was believed that organic compounds could only be synthesized in living organisms through vis vitalis - the "life-force". The theory that organic compounds were fundamentally different from those that were "inorganic", that is, not synthesized through a life-force, was disproved with the synthesis of urea, an "organic" compound by definition of its known occurrence only in the urine of living organisms, from potassium cyanate and ammonium sulfate by Friedrich WĶhler in the WĶhler synthesis. The kinds of carbon compounds that are still traditionally considered inorganic are those that were considered inorganic before WA hler's time; that is, those which came from "inorganic" (i.e., lifeless) sources such as minerals. Some carbon inorganic compounds are carbon dioxide, carbon monoxide, diamond, graphite, fullerenes, cyanide, cyanate, thiocyanate, carbonate, and carbide.

Read More Answers

Question # 141

Is dwarf pampas grass invasive?

Answer:-

No. the root system is shallow and extends only as far as the plant is big. However if the irrigation system is installed poorly and the pipes are too shallow any plant will seek out the moisture and cause problems.

Question # 142

What is an example of a parasite relationship?

An example would be a flea and a dog. The flea drinks the dog's blood, but does nothing beneficial for the dog.

Read More Answers.

Question # 143

Where is the gall bladder located?



Answer:-

The gall bladder is located in the Upper Right Quadrant (URQ) of the abdomen just below the liver. It stores bile secreted by the liver. The duct, which carries bile away from the bladder, is called the common bile duct, which joins the pancreatic duct, which opens in the duodenum. The bile emulsifies fats we take in our diet, thus the bile plays an important role in our lipid metabolism.

The gall bladder in humans is located on the underside of the liver just below the lower ribs.

Read More Answers

Question # 144

What are hormones?

Answer-

Hormones are chemicals secreted by the body to produce changes in physical appearance, reproductive behavior, and emotions.

Hormones are organic chemical messengers they are protein in nature & may have several specific effects on organs & thus control a wide variety of activities. Hormones do not operate in isolation but form an integrated system.

Read More Answers.

Question # 145

What is a pipette and how is it used?

Answer:-

There are many types of pipettes (or pipettes), but most are essentially a fancier version of a medicine dropper or eye dropper. They are used in a laboratory to transport and/or measure a specific volume of liquid.

Volumetric pipettes allow the user to measure a volume of solution extremely accurately and then add it so something else. They are commonly used to make laboratory solutions from a base stock as well as prepare solutions for titration. They typically only allow you measure one single volume in a particular size pipette (just like with volumetric flasks). Therefore, they come in many different sizes.

There are other types of pipettes also, such as a Pasteur pipette, which is not used to measure the volume of the liquid. It is essentially a large dropper, which can be used to remove liquid from one container and add it to another.

Read More Answers.

Question # 146

Is the bacterium MRSA pathogenic or non-pathogenic?

Answer-

MRSA bacteria are pathogenic. This group of bacteria belongs to Staphylococcus aureus family, which have grown resistant to methicillin-type antibiotics. MRSA stands for

M - methicillin R - resistant S - Staphylococcus A $\hat{a} {\in} \lq\lq$ aureus

Staphyloccocus aureus bacteria are often carried on people's skin and sometimes in their noses and back of their throats. People carrying the bacteria who are healthy are said to be colonized, but not infected. The bacteria, however, can cause serious infections, such as pneumonia, blood, bone and surgical wound infections, as well as less serious infections such as impetigo, cellulitis and small abscesses or boils under the right conditions.

Read More Answers.

Question # 147

How can people support creationism when there is no factual basis for the claims made?

Answer:-

Be careful answering this one. Read the question through and turn it over in the mind. Perhaps the thinking person would say that people support creationism because of their faith. Their religion teaches the divine origin of man, and they believe it. That seems to be the crux of the argument by the creationists for creationism. Some creationists decry the work of scientists who have built and continue to build more and more links in the chain of evolutionary development. There is so much evidence for the theory of evolution. What is there for the creationist to hold up in the light of reason? It can get dicey.

Certainly, there is a huge supply of scientific evidence for evolution. Science supports evolution by far more strongly than it does creation. There is no scientific evidence for creation. Certainly, science cannot prove that God did not create man. However, no one can prove by any testable means that He did. Arguments against evolution do not hold water scientifically. The earth is a very, very old ball of rock, and time can do things to the earth and life on it that are almost beyond the comprehension of men. Creation science is an oxymoron, and is almost a joke to the vast majority of the scientific community.

Read More Answers.

Question # 148

What is a vesicle?

Answer:-

A vesicle is a relatively small intracellular, membrane-enclosed sac that stores or transports substances

Read More Answers.

Question # 149

Why the orange trees are often sprayed with water?

Answer:

Although it is grossly counter-intuitive, whenever citrus groves are in danger of experiencing below-freezing temperatures, the trees are sprayed with water. This causes frost to form on the rinds of the fruit and provides an extra layer of insulation against the low temperatures that would otherwise freeze the edible portion of the fruit and destroy the crop.

Read More Answers.

Question # 150

What does an osteoblast cell do?



Answer:-

Living cells within the bone are engaged in an unceasing process of remodeling. Osteoblasts lining the surface of bone are much like fibroblasts, deposit, and organize new bone matrix while osteocytes demolish old bone matrix.

Osteoblasts are converted into osteocytes as they become embedded in this matrix and the matrix calcifies.

Read More Answers.

Question # 151

What is a burette and how is it used?

Answer:-

A burette is a uniform-bore glass tube with fine gradations and a stopcock at the bottom, used especially in laboratory procedures for accurate fluid dispensing and measurement.

The burette is commonly used in titrations to measure precisely how much liquid is used. A burette is simultaneously occupied by the presences of a liquid measuring and transferring this derailment.

Read More Answers.

Question # 152

How is a genetic trait determined by the genetic code within a DNA molecule?

Answer-

A DNA molecule has 4 different bases, either CGTA. Any specific combination of these things forms a different protein (a triplet of 3 base pairs codes for an amino acid and a chain of amino acids is a protein) which is expressed. This protein allows a genetic trait to be expressed. An example could be a protein that adds color to your hair.

Read More Answers.

Question # 153

What is monera?

Answer:-

One of the 5 main kingdoms includes bacteria and blue/green algae. Does NOT have a cell membrane, or in other words, is made of prokaryotic cells. Actually, Monera encompasses eubacteria and archbacteria. In addition, prokaryotes DO have a cell membrane. What they do not have is a membrane bound nucleus.

Read More Answers.

Question # 154

How does fruit produce seeds?

Answer:-

For the formation of fruits, the flower should be fertilized. Where the pollen grain is a male gamete and ovule is a female gamete. When the pollen grain comes is contact with the ovule fertilization occurs and a zygote is formed. This zygote is nothing but seed whereas the other parts of the flower like sepals and petals also contribute in the formation of fruit.

Read More Answers.

Question # 155

What are analogies for a vacuole?

Answer:-

As vacuoles are storage sacs for solid or liquid contents, similarly school bags are also storage contents of your books

Read More Answers.

Question # 156

What is a Florence flask? How it is used?

Answer:-

A Florence flask (also known as a boiling flask) is a type of flask. It is a piece of laboratory glassware. It can hold chemical solutions. The flask has a round body with a long neck. The flask usually comes in volumes of 1 liter. It is similar in shape and function to a round bottom flask.

Read More Answers

Question # 157

How does oak blight spread?

Answer:

The spread of oak blight likely occurs through infected plant material, rainwater, and soil. Foliar hosts may play an important role in the transmission of the infection to bark canker hosts. Moist, cool, windy conditions are thought to spread the pathogen by dispersing spores from the leaves of foliar hosts.

Read More Answers

Question # 158

What is a triglyceride?

Answer:-

A tricglyceride is a glyceride occurring naturally in animal and vegetable tissues; it consists of three individual fatty acids bound together



Question # 159

What is the difference between prokaryotes and eukaryotes?

Answer-

Prokaryotic cells do not have a pre-defined nucleus. The chromosomes in prokaryotes are dispersed in the cytoplasm. In eukaryotes, the chromosomes remain intact inside the nucleus and there is a conspicuous nuclear membrane surrounding the nucleus.

Another difference is that, there is cytoplasmic movement in prokaryotes, whereas there is no cytoplasmic movement in eukaryotes.

Prokaryotic: also no membrane-covered organelles, has circular DNA and bacteria, Eukaryotic: membrane-covered organelles, linear DNA and all other cells. Prokaryotic as a group is the most metabolically diverse. Eukaryotic makes many histones, a type of protein that structurally stabilizes the DNA.

Read More Answers

Question # 160

What are the balanced chemical equations of breathing?

Answer:-

Breathing is all about gas exchange

When we breathe, we are adding a new Tidal volume to our Functional Residual capacity. With that comes Oxygen, Carbon dioxide, Nitrogen and Water vapor. The only 2 gases that participate in actual gas exchange are oxygen and Carbon dioxide. Our ventilation rate is matched to our Carbon dioxide production and therefore if we make twice as much carbon dioxide our ventilation will increase by 2 fold.

At the lungs: Hydrogen + Bicarbonate form in the presence of Carbonic anhydrate Carbonic acid which gets converted by that same enzyme to Carbon dioxide and water. Remember carbon dioxide is a volatile acid so it is breathed off.

Also at the lungs Oxygen saturates Hemoglobin because as hydrogen is being used by Carbonic anhydrate of the red blood cells it is being removed from the Hemoglobin an shifting the dissociation curve to the left therefore increasing Hemoglobin affinity for oxygen. Oxygen content = (% saturation of Hb x Amt of Hb) + Dissolved oxygen in plasma (ml/dl)

O.3ml/dl is the normal dissolved oxygen in plasma if % saturation of Hb is 97.5 or higher.

Read More Answers.

Question # 161

What is a graduated cylinder and how is it used?

Answer-

A graduated cylinder is a piece of laboratory glassware used to accurately measure out volumes of chemicals for use in reactions. They are generally more accurate and precise for this purpose than beakers or Erlenmeyer flasks, although not as precise as a volumetric flask or volumetric pipette. They come in a variety of sizes for different volumes, typically 10 mL, 25 mL, 50 mL, or 100 mL and up to as large as 1 or 2 liters.

Determine the volume contained in a graduated cylinder by reading the bottom of the meniscus at eye level.

Read More Answers.

Question # 162

Why is it important to be familiar with the laboratory apparatus and their uses?

Answer:-

If you do not use instruments or lab apparatuses correctly (or use an apparatus for something it is not intended for) you can very seriously injure yourself! In addition, if you misuse instruments used for measurements, the results of your experiments will be wrong because you will not have correctly measured the thing you were trying to determine, and so you will draw the wrong conclusion about the result of the experiment.

Read More Answers.

Question # 163

What is the difference between nematocyst and spicules?

Answer-

Nematocysts are on Cnidarians Spicules are in Poriferae

Read More Answers.

Question # 164

Why are trees green?

Answer.

It is because leaves have chloroplasts, which have a green pigment, which also have chlorophyll inside them. They are used for conducting photosynthesis, which gives the tree glucose, which is its food.

Read More Answers.

Question # 165

What does vacuoles do?

Answer:

It is an organelle, located in the cell's cytoplasm, which is the site of protein synthesis.

It is actually a protein consisting of 2 parts. These 2 "parts" clamp down on strands of messenger RNA in the cytoplasm and "translate" the information from the mRNA into proteins. They do this by aligning up the proper amino acids, as coded for by the RNA, into their proper sequence and sticking them together. This precise string of amino acids then folds into a protein.

The ribosome is far more than 2 proteins. The ribosome is composed of two subunits- a small and large. Each of these subunits is composed of many proteins and rRNA.

They are the weirdest thing ever. It is in your body and makes you walk and talk.



Question # 166

Why is the reaction of ethane and chlorine not a free-radical addition reaction?

Anewor-

Because no free radicals are involved in the reaction process only carbo cations and Cl- are evolved which are ionic.

Read More Answers.

Question # 167

How many cells are in the average human brain?

Answer:

Roughly, 6 trillion are in the average human brain.

Read More Answers.

Question # 168

What are analogies for a nucleolus?

Answer:-

If the nucleolus is the president of a factory then the nucleolus is the manager. Just picture the cell as a factory, everybody working together and each having different stations. It would do what the president says

Read More Answers.

Question # 169

If curly hair is genetic, why do you have curly hair if none of your ancestors did?

Answer-

The answer to your question may lie in the way that hair-type genes are inherited.

First, review of some basic genetics stuff. For most genes, you have two copies of each gene that you inherited from your mother and father. For most "traditional" genes, there is a dominant and recessive version. This all has to do with gene expression and phenotype. If at least one dominant version of the gene is present, it will be expressed regardless of what the other is. The only way the recessive version will be expressed is if the dominant version is not present. This holds true for some simple traits like whether earlobes are attached or not, where the free earlobe allele is dominant (noted as "E") and the attached (noted as "e") allele is recessive. Hair-type does not follow the nice and simple pattern of inheritance. Hair-type follows a type of inheritance pattern known as "incomplete dominance". Like the earlobe gene, there are two versions of the hair-type gene, curly (noted as C) and straight (noted as s). The incomplete dominance refers to the fact that if you have one of each version of the gene, you get a mix of the two or, in this case, wavy hair. Therefore, for hair type, CC gives curly, Cs gives wavy and ss give straight hair.

Read More Answers.

Question # 170

What is the proper name for EDTA and what is it?

Answer:-

EDTA is ethylenediamine tetraacetic acid. It is a strong chelating agent. It has many uses including:

- 1) Industrial cleaning: complexation of Ca2+ and Mg2+ ions, binding of heavy metals
- 2) Detergents: complexation of Ca2+ and Mg2+ (reduction of water hardness)
- 3) Photography: use of Fe (III) EDTA as oxidizing agent
- 4) Pulp and paper industry: complexation of heavy metals during chlorine-free bleaching, stabilization of hydrogen peroxide
- 5) Textile industry: complexation of heavy metals, bleach stabilizer
- 6) Agrochemicals: Fe, Zn and Cu fertilizer, especially in calcareous soils
- 7) Hydroponics: iron-EDTA is used to solubilize iron in nutrient solutions.

Read More Answers.

Question # 171

How do plants take in oxygen?

Answer:-

First cells in take carbon dioxide and does photosynthesis, which takes water, sugar, and CO2 and then creates oxygen and a green pigment. However, plants breed just like animals and thus use up all the O2 they produce (or almost all). They are auto-sufficient.

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Question # 172

What are sori?

Answer:-

The word "sori" is the plural form of "sorus". In ferns, a sorus (pl. sori) is a cluster of sporangia on the edge or underside of a fertile frond. In many species, they are protected by an umbrella-like cover called the indusium."

Read More Answers.

Question # 173

What does acute disease mean?

Answer:

An acute disease is which does not last for a longer duration n has no weakness in the body



Question # 174

What is an Erlenmeyer flask and how is it used?

It is similar to a beaker, except that it gets narrower at the top. It is used to hold liquids and do reactions in it.

Read More Answers.

Question # 175

What a test tube brush and how is it used?

It is a device, made with nylon bristles attached to a twisted-wire shaft, used to knock the bottoms out of test tubes.

Read More Answers.

Question # 176

What is the formula for photosynthesis?

Answer:-

H2O + 6CO2+ Light Energy ----> C6H12O6+ 6O2

6 molecules of water + 6 molecules of carbon dioxide --->1 molecule of glucose + 6 molecules of oxygen

The one molecule of sugar C6H12O6 is the glucose molecule This means that carbon dioxide (6CO2) $\rm w/Water$

(6h2o) and light energy creates glucose and carbon dioxide

Read More Answers.

Question # 177

What is a brain freeze?

What is commonly referred to as 'brain freeze' occurs when you ingest something that is very cold too quickly. When the cold touches your soft palate it constricts the blood vessels in the area, and then when they dilate it causes pain behind the eyes or even up into the forehead. Your brain does not actually freeze; you just get a lot of pain for a short period.

Read More Answers.

Question # 178

What are the uses of squid fins?

Fins are used by squids to move at low speeds. Their siphon is used when they need to move quickly.

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Question # 179

How long do flowers usually last?

Some flowers, such as Bachelors Buttons, Zinnias, Marigolds, and Petunias last pretty much from the time they start blooming until frost. Others, such as Irises, Tulips, and Daffodils bloom in the spring for a short time. Daylilies bloom in the summer. Mums bloom in the fall. Many varieties bloom longer if you pinch off the old blooms. The best way to choose flowers for the bloom-time you want is to obtain one or more seed catalogs or a book of flowers that gives information on each

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Question # 180

What is the control center of the cell?

Answer:-

The nucleus contains DNA, which contains the instructions for all the functions of the body.

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Question # 181

What do all organic compounds contain?

The key element is carbon. Organic compounds are all carbon-containing compounds.

By definition, an organic compound contains carbon.

Although H2CO3 is inorganic, an anomaly

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Question # 182

What is cellulose?

Answer:-

Cellulose is a long-chain polymeric polysaccharide carbohydrate, of beta-glucose. It forms the primary structural component of green plants. The primary cell wall of



green plants is made primarily of cellulose; the secondary wall contains cellulose with variable amounts of lignin. Lignin and cellulose, considered together, are termed lingo cellulose, which (as wood) is argued to be one of the most common biopolymers on Earth (chrysolaminarin is often argued to be the other). Only one group of animals, the tunicates, has the ability to create and use cellulose. Some acetic acid bacteria are also known to synthesize cellulose.

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Question # 183

What is light reaction?

Answer.

Light reactions are reactions, which are initiated by light (also photo-induced reactions). Generally, light energy is converted into chemical energy.

Read More Answers.

Question # 184

What is an example of an ion of biological importance?

Answer:-

Sodium in one, but so are potassium and calcium.

Read More Answers.

Question # 185

What are some common laboratory techniques?

Answer:-

During the course of these laboratory sessions, you will be expected to become proficient in the performance of the following laboratory techniques:

- 1) Isolation of pure bacterial colonies
- 2) Gram stain

Development of competency in these techniques requires that you also know how to:

- 1) Flame a loop
- 2) Streak a plate for isolated colonies
- 3) Use a light microscope.

Each person is responsible for his microscope and is expected to clean the oil immersion lens at the end of each lab in which it is used. First-year students share these microscopes and, as you may remember, do not appreciate having to clean the microscope before it can be used.

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Question # 186

What is a test tube and how is it used?

Answer:-

A test tube is a clear, cylindrical glass tube usually open at one end and rounded at the other, used in laboratory experimentation.

Test tubes are generally used for combining or collecting chemicals. They are used in a vast range of experiments though in big industry it is boiling tubes, which are more commonly used.

Test tubes have been notably used, of course, in the production of the world's first IVF baby. In Vitro Fertilization literally means 'in glass' fertilization.

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Question # 187

What is the difference between living and non-living things?

Answer:

Living things obtain and use energy. They also grow throughout their lifetime. Living this is made of cells. Living things reproduce. Finally, living things move.

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Question # 188

How are human voices created?

Answer:-

Human voice is created with the help of muscles in the neck and the vocal cords. The tighter the vocal cords the higher the pitch of voice. This is partly also contributed to by testosterone in males that may explain why the voice of males is lower to women.

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Question # 189

What does genetics have to do with biology?

Answer:-

Genetics is the study of the genes found in genetic material (ex. DNA). DNA is found in the nucleus of your cells. The most important aspect of biology is the study of cells. Therefore, genetics is just a subset of biology.

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Question # 190

What is the function of a control group in an experiment?

Answer:-

The function of a control group in an experiment is to be a constant to account for any effects a given environment has on variables in your experimental group. The



control group isolates any uncontrollable phenomena by not being subjected to the unknown variable being tested. The most powerful experiments have two types of control groups a positive and negative control group. A positive control group is subjected to conditions, which are known to produce a positive result to show your experiment is working as expected. A negative control group is subjected to conditions where a negative result is expected. Both of these controls can then be compared to your experimental group to quantify the effect your unknown variable has relative to your controls.

Read More Answers

Question # 191

What do the major organs of the digestive system do?

Answer-

They are salivary glands, teeth, tongue, gums, esophagus, stomach, small intestine, large intestine, pancreas, liver, and gallbladder. They breakdown food so it can be absorbed by the cells of the body. What cannot be digested is eliminated as waste.

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Question # 192

What is protein?

Answer:-

1) Protein is a source of backup energy that your body stores, a large complex molecule made up of one or more chains of amino acids. Proteins perform a wide variety of activities in the cell.

Highly complex nitrogenous compounds found in all animal and vegetable tissues. Proteins, the principal constituents of the protoplasm of all cells (apart from water), are of high molecular weight and consist essentially of combinations of amino acids in peptide linkages. Twenty different amino acids are commonly found in proteins and each protein has a unique, genetically defined amino acid sequence that determines its specific shape and function.

O/Inc

Read More Answers.

Question # 193

What is telophase?

Answer:-

Telophase is the cell splits apart and screws itself.

Read More Answers.

Question # 194

What is a distilling flask and how is it used?

Answer:

A distilling flask is a round bottom flask that often has two openings, and some of them have a long neck.

Read More Answers

Question # 195

What is Concentration Gradient?

Answer:-

The graduated difference in concentration of a solute per unit - distance through a solution.

Read More Answers.

Question # 196

What is black mold?

Answer:-

Mold is a fungus. Black mold is not an official term, since it is impossible to tell with the naked eye what type of mold is present, and many of them appear black or dark gray.

Susan Stewart, in her article in the New York Times, writes, "There are 800 to 1,000 identified molds, according to L. Claire Macdonald, laboratory manager at San Air Technologies Laboratory, a microbial testing firm in Richmond, VA. . . . The most common geniuses of mold in homes are Aspergillus, Penicillium and Cladosporum, she said. Each also manifests in various species, as in Aspergillus parasiticus. Rarer but scarier is Stachybotrys, the mold that is often called 'toxic.'"

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Question # 197

From where does the cell get oxaloacetic acid for krebs citric acid cycle?

Answer:-

Oxaloacetic acid is also produced when pyruvate is acted upon by pyruvate carboxylase in response to an excess of acetyl-CoA.

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Question # 198

What does boiling do to an enzyme?

Answer:

Enzymes are denatured (their shape is changed so it doesn't work) when boiled.

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