|  |  |  |
| --- | --- | --- |
| **Directs all cell activities**  **(nucleus)** | **Control center for plant and animal cells**  **(nucleus)** | **Carries information for reproduction (DNA)**  **(nucleus)** |
| **Gel-like material that surrounds all parts of the cell within the membrane**  **(cytoplasm)** | **Special organelle found only in plant cells in which the energy of sunlight works to combine water and carbon dioxide to make food for the cell**  **(chloroplast)** | **Photosynthesis happens in this plant-cell organelle**  **(chloroplast)** |
| **Nucleus, mitochondrion, golgi bodies, endoplasmic reticulum, chloroplasts, etc.**  **(organelles)** | **An example of a sugar, a high-energy compound.**  **(glucose)** | **Green pigment found inside chloroplasts**  **(chlorophyll)** |
| **A molecule in which the mitochondrion stores energy.**  **(ATP)** | **Process performed by mitochondrion**  **(Cell respiration)** | **By-products of Photosynthesis**  **(oxygen and glucose)** |
| **By-products of cell respiration**  **(water and carbon dioxide)** | **Process performed in the mitochondria of both plant and animal cells**  **(cell respiration)** | **What is scientific notation used for?**  **(to express very large numbers)** |
| **The structures inside chloroplasts that carry out photosynthesis**  **(grana and stroma)** | **Bacteria and other single-celled organisms can copy themselves. This division results in:**  **(new individuals)** | **Cell membranes control the movement of materials \_\_\_\_\_ and \_\_\_\_\_\_\_ of cells.**  **(into and out)** |
| **A group of cells that has a common structure and function**  **(tissue)** | **Tissues which are in sheets and cover surfaces, line certain body cavities, and blood vessels – usually smooth**  **(epithelial tissues)** | **Type of tissue which joins other tissues together, stores fat, and makes blood cells – made of specialized cells and fibers that stick to living cells**  **(Bone, cartilage, and blood) (Give one or more)** |
| **Special tissues in a horse's intestines that absorb nutrients from food**  **(villi)** | **Special tissue in grass that transports water and nutrients from the soil**  **(xylem)** | **Made up of several tissue types that work together to perform one or more functions**  **(organs)** |
| **Organs which remove waste and help control blood pressure**  **(kidneys)** | **This type of organism needs specialized tissues to accomplish tasks.**  **(multicellular)** | **This system carries oxygen to the body and removes carbon dioxide and other wastes.**  **(circulatory)** |
| **System which removes liquid wastes**  **(urinary)** | **System which supports body and enables movement**  **(musculoskeletal)** | **Obtains nutrients from food**  **(digestive)** |
| **Controls movements and other organ systems**  **(nervous)** | **A newborn baby has 270 of these. An adult only has 206 of these. What are they?**  **(bones)** | **This organ which is part of the nervous system, weighs about 3 pounds.**  **(brain)** |
| **How many organ systems do humans have?**  **11** | **The glands in this system act as the body's chemical messenger centers.**  **(endocrine system)** | **chemical messages**  **(hormones)** |
| **List from smallest to largest: organ systems, organism, cells, tissues, organs**  **(cells, tissues, organs, organ systems, organism)** | **Calculate the percentage:**  **1/5**  **(20%)** | **Give the formula for calculating percentage from a part to a whole.**  **(part/whole x 100/1)** |
| **How many tentacles does an octopus have?**  **(8)** | **How many tentacles does a squid have?**  **(10)** | **How many tentacles would a group of 10 squid and 8 octopuses have?**  **(164)** |
| **Causes malaria**  **(protozoa carried by mosquitoes)** | **Caused by harmful organisms or viruses**  **(infectious diseases)** | **lives in chicken and other animals – cooking destroys this**  **(salmonella)** |
| **True or False:**  **Viruses are not organisms.**  **(True, they cannot reproduce on their own.)** | **Contains genetic information, but no nucleus**  **(virus)** | **Bacteria which causes Lyme Disease, carried by ticks**  **(spirochete bacteria)** |
| **Name two noninfectious diseases:**  **(cancer, arteriosclerosis)** | **Name the 5 physical and chemical barriers of your body:**  **(skin, tears, saliva, earwax, mucus)** | **Helps to remove harmful bacteria and other infectious agents, and prevents you from passing them to others**  **(handwashing with soap and water)** |
| **Your body's second line of defenses include:**  **(inflammation and production of phagocytes)** | **Third line of defense:**  **(immune system)** | **Suppose 7 out of 28 students in a class have asthma. What percentage is that?**  **(25%)** |

|  |  |  |
| --- | --- | --- |
| **Name a way to stop disease before it starts.**  **(vaccination)** | **What disease might result from contamination caused during a tsunami?**  **(cholera)** | **Name the physician who discovered penicillin.**  **(Sir Alexander Fleming)** |
|  |  |  |