

- Select the most appropriate alternative for each of the following six questions.
- Proteins are built of sub-units called:
 - fatty acids
 - monosaccharides
 - amino acids
 - nucleotides.
 - An example of a polysaccharide is:
 - glucose
 - sucrose
 - fructose
 - cellulose.
 - A rich source of chemical energy is:
 - air
 - water
 - flavoured milk
 - mineral water.
 - Living things use energy for all of the following except:
 - detecting changes in their environment
 - diffusing material across a cell membrane
 - repairing tissue
 - reproducing.
 - Autotrophic organisms take up carbon in the form of:
 - carbon dioxide
 - carbohydrates
 - protein
 - carbonic acid.
 - An exchange of matter between an organism and its external environment could be:
 - release of heat energy
 - trapping of radiant energy
 - release of carbon dioxide
 - trapping of sunlight.
 - The following reactions are catabolic:
 - carbon dioxide + water \rightarrow glucose + oxygen
 - sulfate \rightarrow sulfide + oxygen
 - glucose + oxygen \rightarrow carbon dioxide + water
 - ATP + water \rightarrow ADP + phosphate.
- Select the incorrect alternative for each of the following two questions.
- State whether the following are true or false.
 - All living cells possess a plasma membrane.
 - Starch forms part of the structure of animal cells.
 - Eukaryotic cells with high energy requirements would possess a large number of mitochondria.
 - A fingernail consists of a group of cells.
 - Cells are all the same size.
 - Omnivores eat both plants and animals.
 - Living things can detect changes in their environment.
 - Fill in the missing gap in each of the following with the most appropriate word.
 - The organelle that traps sunlight in eukaryotic cells is the _____.
 - Most of the ATP in eukaryotic cells is made in the _____.
 - The cell wall in plants contains _____ and in fungi contains _____.
 - Chlorophyll _____ is found in red algae.
 - _____ reactions in living things involve the release of energy.
 - Energy-requiring reactions are called _____ reactions.
 - The net movement of water molecules across a partially permeable membrane and down a concentration gradient is called _____.
 - An energy-requiring process that results in the net movement of a substance against a concentration is referred to as _____.
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