1. **What name is given to plants possessing xylem and phloem, which includes all the land plants except the mosses and their relatives?**

**ANS: Vascular plants**

1. **What name is given to the inactive precursor of an enzyme?**

**ANS: Zymogene**

1. **Name the nitrogenous waste product of mammals and some other vertebrate formed in the liver by combination of ammonia and carbon dioxide.**

**ANS: Urea**

1. **What name is given to the production of ova in animal ovaries?**

**ANS: Oogenesis**

1. **State the process in arthropods during which the exoskeleton is periodically shed and a new one forms to allow for growth?**

**ANS: Molting**

1. **What do you call the condition of producing gametes of only one type**

**ANS: Isogamy**

1. **What do you call a protein pigment of plants sensitive to red and far-red light**

**ANS: Phytochrome**

1. **What name is given to a complex polysaccharide that cross-links the cellulose fibrils in a plant cell and is a major constituent of the middle lamella**

**ANS: Pectin**

1. **State the response by an organism to the duration and timing of light and dark conditions**

**ANS: Photoperiodism**

1. **What name is given to a connector between adjacent plant cells through tiny openings in the cell walls?**

**ANS: Plasmodesma**

1. **What are the two systems which form the Nervous system?**

**ANS: Central Nervous System and peripheral Nervous system**

1. **Name two ways in which a species of fungus can dissimilate glucose and produce ATP.**

**ANS: Aerobic respiration and Anaerobic respiration.**

1. **What do you call a pair of genes which have the same features and found on the same locus?**

**ANS: Alleles**

1. **The study of cells is called……..**

**ANS: Cytology.**

1. **What do you call the microscopic space that are found between two neurons?**

**ANS: Synapse.**

1. **Why is light needed during photosynthesis?**

**ANS: To break the hydrogen – oxygen bonds.**

1. **What is the use of copper in the animal’s body?**

**ANS: Blood formation**

1. **Why is it not possible to cure viral diseases in plants?**

**ANS: It is because viruses stay within plant cells. So killing them would mean killing the cell, and ultimately the entire plant.**

1. **In hypogeal type of germination, the cotyledon does not come out the soil, but remains underground, why?**

**ANS: It is because the epicotyl grows faster than the hypocotyl.**

1. **Why are oranges budded or grafted on to lemon instead of being sown plantd on their own?**

**ANS:It is because lemons have a strong root system which is not prone to disease attack as compared to the orange root system.**

**OR: The lemon root system is very vigorous / vibrant in growth.**

1. **What is totipotency?**

**ANS: This is the ability of any part of the plant to grow / develop into a full plant.**

1. **What is a viable seed?**

**ANS:This is a seed that is living or of good quality and able to germinate easily.**

1. **Why is maize not considered to be a self pollinating plant / crop despite having both the male and the female organs?**

**ANS: It is because the stigma and the anther mature at different times.**

1. **What is chlorosis?**

**ANS: Yellowing of the leaves which results in into death of a plant.**

1. **What type of chemical bond is formed between the molecule of glycerol and the three fatty acids?**

**ANS: Ester bond**

1. **Which property of water makes it suitable for use as a hydrostatic skeleton?**

**ANS: Water is difficult to compress**

1. **What organelle in animal cells contain chromatin**

**ANS: Nucleus**

1. **Which hormone controls growth of plant stems in particular?**

**ANS: Gibberellin**

1. **Whatidentifies the cell as a prokaryote?**

**ANS: The DNA is in a circular form.**

1. **What describes resolution in microscopy?**

**ANS: The Ability to distinguish between two objects that are very close together.**

1. **For which process is the large surface area of the cristae in the mitochondrion important?**

**ANS: electron transport chain**

1. **What happens to chromosomes in the prophase of mitosis?**

**ANS: They shorten and become visible.**

1. **What name is given to a group of genetically identical cells or individuals derived by asexual division from a common ancestor**

**ANS: Clone**

1. **What term is used to refer to an entire chromosome complement of an individual or cell as seen in a photomicrograph in which a cell’s chromosomes are arranged according to size and classification?**

**ANS: KARYOTYPE.**

1. **The unequal distribution of electric changes on each side of a neurone is called \_\_\_\_\_**

**ANS: Resting potential**

1. **What is the collective term for all hormones responsible for contraction of muscles especially during birth period\_\_\_\_\_\_\_\_\_\_**

**ANS: Prostaglandin**

1. **The form of vitamin D which contributes to the homeostasis of the body fluids is called \_\_\_\_\_\_\_\_\_?**

**ANS: Calcitriol**

1. **What is the function of a flagellum on a prokaryotic cell?**

**ANS: To aid movement as it propels**

1. **Name a bacterium that can use the copper ions that are found in chalcopyrite to form the compound CuSO4**

**ANS: ThiobacillusFerroxidans**

1. **Name one of the important biogeochemical cycles**

**ANS: Nitrogen Cycle or Carbon cycle**

1. **Some animals, including aphids, brine shrimp and some species of fish, frogs and lizards reproduce asexually through a process called\_\_\_\_\_\_\_**

**ANS: Parthenogenesis**

1. **Calculate the amount of energy in kJ lost at the fourth (4th ) trophic level if the energy reaching the second trophic level was 17000kJ.**

**ANS: 1530kJ**

1. **What is the scientific name of a human being?**

**Answer: Homo sapiens**

1. **A plant without roots, stem and leaves is called-------**

**Answer: Algae**

1. **The total number of species, genes, of organisms and the ecosystem in which they live is collectively called-------**

**Answer: Biodiversity**

1. **An organism is unicellular, autotrophic and eukaryotic nature, to which kingdom does such organisms belong?**

**Answer: Kingdom plantae**

1. **A substance that tends to keep the PH of the biological environment constant is called -----------**

**Answer: Buffer**

1. **Smaller molecules of the same type and kind that join together to form larger molecules are called---------**

**Answer: Monomer units**

1. **Name the bimolecular found in cell membrane whose function is to give the membranes its rigid and permeability----------**

**Answer: Cholesterol**

1. **Structures found in the cell that are membranous in nature are called-------**

**Answer: organelle**

1. **The name of a hydrolytic enzyme found in tears , saliva, and sometimes in mucus are called--------------**

**Answer: Lysozymes**

1. **What name is given to the skeletone found in arthropods such as grasshoppers ?**

**Answer: Exoskeletone**

**53.Dysentery is a disease caused by germ called -----------------**

**Answer: Entamoeba histolytica**

**54. What name is given to the hormone responsible for excitement ------------**

**Answer: Epinephrine**

**55. Name the hormone responsible for the rhythmic contraction and relaxation of the uterus wall in pregnant mothers-----------**

**Answer: Oxytosine**

**56. A programmed cell death in multicellular organisms is called----------**

**Answer: Apoptosis**

**57. A substance on which an enzyme act on is called ----------**

**Answer: Substrate**

**58. An organic non-protein molecule that assist an enzyme to do its catalytic function is called --------**

**Answer: Co enzyme**

**59. The removal of an amino acid is called -------------**

**Answer: Deamination**

**60. Amoebas are pathogens found in fresh drinking water , what name is given to the skeletone surrounding this organism ?**

**Answer: Hydrostatic skeleton**

**61. The process by which cells remove unwanted debris out of the cell is called -------**

**Answer: Senescence**

1. **Plant that do not grow in soil instead do so on top of larger plants are called ------Answer: Epiphytes**
2. **A degenerative bone disease resulting from insufficient calcium is called ---------: Answer: Osteoporosis**
3. **Name the kingdom to which the malaria parasite Plasmodium falciparum belong to ------------**

**Answer: Protoctista**

1. **The kingdom Animalia is divided into two main divisions, Nmane the divisions --------------------**

**Answer: Vertebrata and Invertebrates**

1. **At very high temperatures enzymes fail to catalyses their substrates this is because they lose their activity , this loss of activity is called -------------**

**Answer: Deamination**

1. **A desirable peak of a well controlled homeostatic environment is called ----------**

**Answer: Norm**

1. **What name is given to the membrane inner folding of the mitochondria?**

**Answer: Cristae**

1. **What name is given to the glands found in the duodenum responsible for secretion of alkaline solution and mucus?**

**Answer: Brunner’s glands**

1. **What name is given to cells of the stomach wall responsible for secretion of hydrochloric acid?**

**Answer: Oxyntic cells**

1. **Name the disease that results from insufficient absorption of vitamin B into the blood---------**

**Answer: Pernicious Anemia**

1. **A relationship in which both parties involved in relationship benefit from each other in an ecological environment is called --------**

**Answer: Symbiotic relationship**

1. **Algae and fungi co- exist while benefiting from each other forming what is called-------**

**Answer: Lichen**

**74.An organism with both male and female sex organ is called ----------------**

**Answer: hermaphrodite.**

**34.What law states that organisms characteristics controlled by factors which are normally carried in pairs but which occur singly in the gametes ?**

**Answer :Law of segregation or law of particulate**

1. **What is a condition where a single chromosome fails to segregate during anaphase of meosis?**

**Answer: Non dustuction**

1. **What makes the geranium plant suitable for use in carrying experiments on photosynthesis?**

**Answer: It is sensitive to light or responds quickly to light**

1. **The manufacture of food from chemicals by autotrophs is called----------Answer Chemosynthesis**
2. **Name the organic compound that influences the shedding of leaves and the seasonal slowing down of plant activities**

**Answer : Abscisic acid**

1. **What is the nitrogenous base found in the DNA and RNA**

**Answer: Adenide/ quinine**

1. **The different forms of the gene for a trait are called --------**

**Answer : Alleles**

1. **Name the phylum of animals with bodies made up of many similar segments like segmented worms**

**Answer: Annelida**

1. **Name the branch of science that traces the development of human species.**

**Answer: Anthropology**

1. **Which theory states that living organisms only originate from living organisms**

**Answer: Biogenesis**

1. **What is the protein content that surrounds the nuclei acid core of RNA or DNA in virus called?**

**Answer: Capsid**

1. **Name the five carbon sugar found in DNA**

**Answer: Deoxribose**

1. **Mention in full, the a condition caused by an insufficient concentration of insulin in the blood**

**Answer: Diabetes Mellitus ( Reject Diabetes alone)**

1. **What is separation of homologous chromosomes during anaphase 1 of meosis called-------**

**Answer: Disjunction**

**48.. Name the process by which materials move out of the cell by means of vesicle**

**Answer: Exocytosis**

**49.What term is used to describe the total of all the alles in a population?**

**Answer: Gene pool**

**50.Name a thick walled grinding organ in birds and many invertebrates that crushes feed released from the crop.**

**Answer: Gizzard**

1. **Name the coiled shape like spring used to describe the structure of DNA molecule**

**Answer: Helix**

1. **Name the process of secreting water at the edge of leaves by plants**

**Answer: Guttation**

1. **Mention a hereditary disease in which one or more of the clotting factors are missing from the blood**

**Answer: Hemophilia**

1. **Small groups of proteins around which DNA is wrapped to form chromatin are called -------**

**Answer: Mistones**

1. **What term is used to describe a medical condition characterized by storage of excess body fat**

**Answer: Obesity**

1. **What term is used t describe sexual excitement or gratification through**

**intercourse with animals**

**Answer: Zoophilia**

1. **What causes exogenous obesty?**

**Answer: excessive food intake**

1. **Name the cells which the HIV infects ?**

**Answer: CDA cells**

1. **What is the formula used to measure the body mass index to determine desirable body mass index to determine desirable body weights.**

**Answer: BMI = Wt (Kg)**

**Height (M2)**

1. **What term is used to describe species in which individual plants bear separate male and female flowers**

**Answer: Monocies Plants.**

1. **Name the Scientist who first discovered the main rules governing inheritance**

**Answer: Gregor Mendel**

1. **Name the enzymes which zips the double DNA helix open**

**Answer: DNA polymerease**

1. **Name the phylum of green algae**

**Answer: Chlorophta**

1. **Name the phylum of flowering plants with seeds protected by an ovary wall forming a fruit.**

**Answer: Angiospermophyta**

1. **Differentiate hormones from pheromones .**

**Answer: Hormones are biological catalyst which are released in blood so as to alter**

**the function**

1. **Bees is to swam as bacterial is to ---------------**

**Answer: Colony**

1. **Name the hormone which directs plant shoot to the stimulant of light.**

**Answer: Auxin**

1. **What is the name given to a glycoprotein receptor found on B-cell surface? ANS: Immunoglobulin**
2. **What do the acronomy NAD stand for?**

**ANS: Nicotinamide Adenine Dinucleotide**

1. **What feature distinguishes Eukaryotic cells from Prokaryotic cells?**

**ANS: Presence of membrane bound in eukaryotic cells**

1. **To which phylum does hydra belong?**

**ANS: Cynidaria**

1. **What is the name given to fine granules of calcium carbonate which float in the fluid inside the vestibular apparatus of the human?**

**ANS: Otoliths**

1. **Name the cytoplasmic strands which link cytoplasm of two adjoining cells and enable substances to be transported easily between neighboring cells.**

**ANS: Plasmodesmata**

1. **What is the name given to the largest bone in the human body?**

**ANS: Femur**

1. **What name is given to the type of Asexual reproduction where gametes develop new organism without fertilization? ANS:Parthenogenesis**
2. **The amount of blood pumped out of the heart per beat is called?**

**ANS: Stroke volume**

1. **The loss of a nucleotide from a chromosome is known as?**

**ANS: Deletion**

1. **What law states that an organism’s characteristics are controlled by factors which are normally carried in pairs but which occur singly in gametes?**

**ANS: Law of segregation / Law of particulate**

1. **Name the compound produced during pyruvic acid break down by the combination of an acetyl group with coenzyme A?**

**ANS: Acetyl CoA**

1. **What is a condition where a single chromosome fails to segregate during anaphase of meosis?**

**ANS: Non disjunction**

1. **Incomplete metamorphosis is also referred to as?**

**ANS: Hemimetabolous**

1. **What is hydrolysis?**

**ANS: Metabolic reaction that involves the addition of water**

1. **All monosaccharides belong to a group of sugars called?**

**ANS: Aldoses / ketoses**

1. **All banana plants have a pseudostem.What does the term pseudostem mean?**

**ANS: False term**

1. **Which property of water makes it suitable for use as a hydrostatic skeleton?**

**ANS: Incompressible**

1. **The organelle which breaks down cellular waste in eukaryotic cells is called?**

**ANS: Lysosomes**

1. **What membrane forms the fetal side of the placenta?**

**ANS: Chorion**

1. **What cause cardiovascular disease?**

**ANS: Antherosclerosis**

1. **What do you understand by the term metabolite?**

**ANS: Any molecule that is taking part in metabolism**

1. **Name the front part of the skull?**

**ANS: Cranium**

1. **What term is used to refer to the cells of the liver?**

**ANS: Hepatocytes**

1. **Name the molecules that make up table sugar?**

**ANS: Glucose and Sucrose**

1. **What covers the outer surface of the gut?**

**ANS: Peritoneum**

1. **What is the main nitrogenous excretory product of terristerial insects?**

**ANS: Uric acid**

1. **Name the bacteria used in the biological control of malaria?**

**ANS:Bacillus thuringiensis**

1. **What make myo’globin a bit different from haemoglobin?**

**ANS: Myo’globin has a greater affinity for oxygen as compared to haemoglobin**

1. **Name the structure which prevents friction between vertebrae?**

**ANS: Intervertebral discs**

1. **What name is given to the production of large amount of dilute urine?**

**ANS: Diuresis**

1. **What is the other name for primary natural Auxins?**

**ANS: Indole-3-acetic acid (IAA)**

1. **Where within the testes does meosis take place?**

**ANS: Seminiferous tubules.**