

Chapter - 3

Biology

Answer Key with Solutions

Includes: All MCQs + Extra PYQs with Detailed Explanations

CHASE
ACADEMY

Solutions

- (a); The skin is the largest organ of the body, with a total area of about 20 square feet. The skin protects us from microbes and the elements, helps regulate body temperature, and permits the sensations of touch, heat, and cold
- (b); *Delonix regia* Rafin is the scientific name of Gulmohar.
- (a) Amoeba is a genus that belongs to protozoa, which are unicellular eukaryotes organisms with membrane-bound cell organelles.



4. (b); Diabetes is caused by the immune system destroying the cells in the pancreas that make insulin. This causes diabetes by leaving the body without enough insulin to function normally
5. (b); Teak is a tropical hardwood tree of species *Tectona grandis* linn. The species is placed in the family Lamiaceae. *Tectona grandis* is a large, deciduous tree that is dominant in mixed hardwood forests. It has small, fragrant white flowers and papery leaves that are often hairy on the lower surface.
6. (b); Sea-Anemones belongs to the phylum Cnidaria.
7. (b); Vitamin K deficiency causes the non-clotting of blood.
8. (c); Plants produce energy from light through a process known as photosynthesis.
9. (b); Chickenpox, also known as varicella, is a highly contagious disease caused by the initial infection with varicella zoster virus(VZV).
10. (b); The disease is caused by the yellow fever virus and is spread by the bite of an infected female mosquito. It infects only humans, other primates, and several species of mosquitoes.
11. (c); A mangrove is a shrub or small tree that grows in coastal saline or brackish water. They have respiratory roots.
12. (c); *Sciurus* is scientific name of Squirrel.
13. (b); Haemophilia, is a mostly inherited genetic disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding.
14. (d); Ornithophily or bird pollination is the pollination of flowering plants by birds.
15. (d); Spiders are air-breathing arthropods that have eight legs and chelicerae with fangs that inject venom.
16. (b); Oncogenes were first discovered as cancer-causing viruses, they also are found in all normal cells. The original, unmutated wild-type allele of an oncogene is known, strictly, as the proto-oncogene. The mutant versions are the cancer-causing oncogenes.
17. (a); *Azadirachta indica*, commonly known as neem, nintree or Indian lilac, is a tree in the mahogany family Meliaceae.
18. (a); Octopus belongs to the phylum Mollusca.
19. (b); The medulla oblongata helps regulate breathing, heart and blood vessel function, digestion, sneezing, and swallowing. This part of the brain is a center for respiration and circulation.
20. (b); In biology, a spore is a unit of sexual or asexual reproduction that may be adapted for dispersal and for survival, often for extended periods of time, in unfavourable conditions. Spores form part of the life cycles of many plants, algae, fungi and protozoa.
21. (a); Bacteria was discovered by Antonie van Leeuwenhoek.
22. (c); Scurvy is caused due to deficiency of Vitamin C.
23. (d); *Achras sapote* is the scientific name of Chiku.
24. (a); Prawn belongs to the phylum Arthropoda
25. (b); Pulses are a rich source proteins.
26. (a); The plant cell wall is composed of cellulose. Cellulose is a structural carbohydrate and is considered a complex sugar because it is used in both protection and structure.
27. (c); Mycology is the branch of biology concerned with the study of fungi, including their genetic and biochemical properties, their taxonomy and their use to humans.
28. (a); The epidermis, the outermost layer of skin, provides a waterproof barrier and creates our skin tone.
29. (a); A legume is a plant or its fruit or seed in the family Fabaceae. Legumes are grown agriculturally, primarily for their grain seed called pulse, for livestock forage and silage, and as soil-enhancing green manure. Many legumes have root nodules that provide a home for symbiotic nitrogen-fixing bacteria called rhizobia.
30. (c); Earthworms belongs to the Annelida Phylum.
31. (a); Ringworm of the skin (*tinea corporis*) is most commonly caused by the fungus *Trichophyton rubrum*, which spreads from one person to another.
32. (b); *Mangifera Indica* is scientific name of Mango.
33. (c); Crabs belongs to the phylum Arthropoda.
34. (b); Nearsightedness, also known as myopia, is a common type of refractive error where close objects appear clearly, but distant objects appear blurry.



35. (c); Dr. N E Borlaug is father of Green Revolution.
36. (b); *Panthera Tigris* is the scientific name of Tiger.
37. (c); The skull consists of 8 cranial bones and 14 facial bones.
38. (d); Halophytes are plants adapted to saline soils, and occur naturally in environments ranging from maritime estuaries to remnant salt lakes in arid zones.
39. (a); *Felis Catus* is the scientific name of cat.
40. (b); Pneumonia is an illness of the lungs and respiratory system in which microscopic air-filled sacs in the lungs become inflamed and flooded with fluid causing cough with phlegm, fever, chills, and difficulty breathing.
41. (c); Gregor Mendel is known as the "father of modern genetics".
42. (a); Lysosomes are called suicide bag of cell as when any foreign material enters the cell or the cell gets damaged too much then these small organelles burst and the digestive enzymes digest the whole cell.
43. (d); Liver is the largest gland in human body. It is also the largest (internal) organ in our body and can weigh up to 1.5 kg for a human adult.
44. (b); Photosynthesis is the process by which leaves absorb light and carbon dioxide to produce carbohydrate (food) for plants to grow. The sunlight can get to the chloroplasts in the cells.
45. (b); An insect that transmits a disease is known as a vector, and the disease is referred to as a vector-borne disease.
46. (d); The second largest gland in human body is pancreas.
47. (a); *Annona Squamosa* is the scientific name of Sugar-apple or sweetsop or Custard apple.
48. (c); The formal introduction of Binomial Nomenclature system of naming species is credited to Carl Linnaeus.
49. (b); Beriberi is a disease caused by a vitamin B1 deficiency also known as thiamine deficiency.
50. (d); Chlorophyll was first isolated and named by Joseph Bienaime Caventou and Pierre Joseph Pelletier in 1817.
51. (b); Cell theory is not applicable on Viruses. They are made up of proteins and one of nucleic acids i.e DNA or RNA. So they lack protoplasm, the essential part of the cell.
52. (d); Prednisone drug is used as an Anti-Inflammatory drug. It is used to treat a number of different conditions, such as inflammation (swelling), severe allergies, adrenal problems, arthritis, asthma, blood or bone marrow problems, endocrine problems, eye or vision problems, stomach or bowel problems, lupus, skin conditions, kidney problems, ulcerative colitis, and flare-ups of multiple sclerosis.
53. (d); *Musa paradisiaca* is the scientific name of Banana plant.
54. (a); Prawns are crustaceans similar in appearance to shrimps, but they can be distinguished by the gill structure which is branching in prawns and not in shrimp.
55. (c); Vitamin A is also known as retinol because it produces the pigments in the retina of the eye. Vitamin A promotes good vision, especially in low light.
56. (d); Adventitious roots, arise from an organ other than the root—usually a stem, sometimes a leaf. They are especially numerous on underground stems. The formation of adventitious roots makes it possible to vegetatively propagate many plants from stem or leaf cuttings.
57. (a); Spiders belong to the class of Arachnids.
58. (d); Human skins have three layers- Epidermis, Dermis and Subcutaneous fat.
59. (d); *Allium Cepa* is the scientific name of onion.
60. (d); Deoxyribo nucleic acid (DNA) is a molecule that carries the genetic instructions used in the growth, development, functioning and reproduction of all known living organisms and many viruses.
61. (d); Bupropion is used to treat major depressive disorder and to help people stop smoking.
62. (b); The orange colour of carrot is because of Carotene.
63. (c); Snake venom is highly modified saliva containing zootoxins which facilitates the immobilization and digestion of prey, and defends against threats. It is injected by unique fangs after a bite, and some species are also able to spit.
64. (b); Prothrombin, responsible for clotting of blood is released by Blood Platelets.
65. (c); *Acacia arabica* is the scientific name of Babul.
66. (c); *Canis Vulpes* is the scientific name of Fox.
67. (d); Hydralazine is used to cure high blood pressure (hypertension).



68. (a); The beetroot is the taproot portion of the beet plant.
69. (d); A gene is the basic physical and functional unit of heredity. Genes, which are made up of DNA, act as instructions to make molecules called proteins.
70. (b); Tramadol is used to treat moderate to moderately severe pain.
71. (d); Sugarcane is grass of the family Poaceae, primarily cultivated for its juice from which sugar is processed.
72. (b); Anton van Leeuwenhoek (1632 - 1723) was a Dutch tradesman and scientist, best known for his work on the development and improvement of the microscope and also for his subsequent contribution towards the study of microbiology so he is called as father of microbiology.
73. (b); The main function of RNA is to carry information of amino acid sequence from the genes to where proteins are assembled on ribosomes in the cytoplasm. This is done by messenger RNA(mRNA). In other words, primary function of RNA is protein synthesis.
74. (c); Active transport is the movement of dissolved solutes across a membrane against a concentration gradient (moving from low to high concentration). This process requires a carrier protein, and energy in the form of ATP is required.
75. (c); Study of classification of organisms is known Taxonomy.
76. (a); Metformin is an oral antidiabetic drug for the treatment of diabetes.
77. (b); Photosynthesis is the process used by plants, algae and certain bacteria to harness energy from sunlight and turn it into chemical energy. Photosynthesis takes place inside plant cells in Chloroplasts.
78. (a); Mitochondria is a membrane bound cellular structure. They are described as power house of the cells. These organelles generate most of the energy of the cell in the form of adenosine triphosphate(ATP) and it is used a source of chemical energy. In other words, it is the cell organelle, in which the biochemical processes of respiration and energy production occur.
79. (d); The yellow colour of human urine is due to Urochrome.
80. (b); Wilting is the loss of rigidity of non-woody parts of plants. This occurs when the turgor pressure in non-lignified plant cells falls towards zero, as a result of diminished water in the cells. The rate of loss of water from the plant is greater than the absorption of water in the plant.
81. (d); Bovidae Ovis is the scientific name of Sheep.
82. (d); Bile is produced continuously by the liver (liver bile), and stored and concentrated in the gallbladder(gallbladder bile).
83. (d); Ferns belong to Pteridophyta division of Plants.
84. (d); Antibiotics also called antibacterials, are a type of antimicrobial drug used in the treatment and prevention of bacterial infections. Alexander Fleming invented Antibiotic.
85. (a); Vitamin K in majority is synthesized by bacteria in the large intestine. It is necessary for formation of several blood-clotting factors in the liver, and deficiency leads to bleeding disorders.
86. (c); Plant morphology or phytomorphology is the study of the physical form and external structure of plants. This is usually considered distinct from plant anatomy, which is the study of the internal structure of plants, especially at the microscopic level. Plant morphology is useful in the visual identification of plants.
87. (d); A nephron is the structural and functional unit of the kidney. A nephron is used separate to water, ions and small molecules from the blood, filter out wastes and toxins, and return needed molecules to the blood.
88. (b); The cerebrum or cortex is the largest part of the human brain, associated with higher brain function such as thought and action. The cerebral cortex is divided into four sections, called "lobes": the frontal lobe, parietal lobe, occipital lobe, and temporal lobe.
89. (c); The axillary bud is a bud that develops in the axil of a leaf of a plant. Axillary buds develop from the nodes which then becomes a new stem. Sometimes from axillary buds instead of branches (axillary shoot) also arise flowers, these buds are called floral buds.
90. (a); Poliomyelitis is an acute communicable disease of humans caused by a human



- enterovirus of the Picornaviridae family. Tetanus is an infection caused by bacteria called *Clostridium tetani*. Leprosy is a disfiguring disease caused by the *Mycobacterium leprae* bacteria. Plague is caused by the bacteria *Yersinia pestis*.
91. (a); Diastole is that part of the cardiac cycle during which the heart refills with blood after the emptying done during systole which is also known as contraction.
 92. (c); *Azadirachta indica* is botanical name of neem. It is a multipurpose tree that is highly popular in India, where it provides food and insecticide, and is used for its great number of ethnomedicinal properties.
 93. (c); End products of digestion of carbohydrates are Glucose, fructose and galactose.
 94. (d); Salivary gland is a source of enzyme Ptyalin. The enzyme ptyalin, or salivary amylase acts on starches and converts them to maltose. It helps in the predigestion of starches.
 95. (c); Pteridophyte are vascular plants i.e., plants with xylem and phloem, that reproduce and disperse via spores. They are seedless, vascular cryptogams.
 96. (c); Orcas dolphin is also known as killer whales are the largest member of the dolphin family
 97. (b); Lipase is an enzyme in the body uses to break down fats in food so they can be absorbed in the intestines. Lipase is produced in the pancreas, mouth, and stomach.
 98. (a); The pattern of arrangement of leaves on the stem is called Phyllotaxy. As a stem grows at its apex, new leaf buds form along the stem by a highly controlled developmental process.
 99. (a); Cell biology or Cytology is the branch of biology that studies the different structures and functions of the cell.
 100. (c); Antimalarial medications, also known as antimalarials, are designed to prevent or cure malaria. Chloroquin is used in Antimalarial drug.
 101. (d); Nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur are the macronutrients in plants.
 102. (d); Insects have a system of tubes, called tracheae, instead of lungs.
 103. (d); Trypsin is one of the three principal digestive proteinases. Trypsin acts with the other proteinases to break down dietary protein molecules to their component peptides and amino acids.
 104. (a); The ancient Egyptians used Willow bark to produce aspirin as a remedy for aches and pains.
 105. (b); *Canis Familiaris* is the scientific name of Dog.
 106. (d); Milk contains a sugar called lactose. It also contains harmless bacteria called lactobacillus, which uses lactose for energy and creates lactic acid as a by-product. It is the lactic acid which makes milk taste sour.
 107. (c); Ferns are non-flowering, deciduous or evergreen perennial plants that grow in various sizes having roots. The fern's life cycle continues when spores germinate in sunlit, moist environments.
 108. (a); The excretory organ of cockroach is the malpighian tubules. It is found at the junction of the midgut and hind gut and are about 150 in number. They are fine, yellow coloured and branched threads present in bundles. They lie freely in the haemolymph.
 109. (a); Risedronate medicine is for use when you have a high risk of bone fracture due to osteoporosis.
 110. (d); A Mushroom is the fleshy, spore-bearing fruiting body of a fungus.
 111. (a); Dermatitis is a fungal disease. Dermatitis is a general term that describes an inflammation of the skin. Dermatitis can have many causes and occurs in many forms. It usually involves an itchy rash on swollen, reddened skin.
 112. (a); The human skeleton is the internal framework of the body. It is composed of 270 bones at birth which decreases to 206 bones by adulthood after some bones have fused together.
 113. (c); *Phyllanthus emblica* is scientific name of amla it is a deciduous tree of the family Phyllanthaceae.
 114. (c); Sponges the members of the phylum Porifer, are a basal Metazoa clade as sister of the Diploblasts.
 115. (d); Azolla is an efficient Nitrogen fixer. The use of Bio-fertilizers like Azolla not only increases the rice productivity but also improves the long term soil fertility.
 116. (b); Phloem is responsible for transport of food and other substances in plants. Xylem



- transport water and solutes from the roots to the leaves.
117. (c); Temporal lobe of human brain is associated with hearing and are related to smell, taste and short- term memory.
118. (b); In mammals, an important role of excretion is played by Kidney. Kidney extract waste from blood, balance body fluid from urine.
119. (a); The stomach, an important organ for digestion, produces gastric juice which is comprised of hydrochloric acid, water and enzymes. Hydrochloric acid works with the main gastric enzyme called pepsin to aid the digestion of protein.
120. (b); A Bio fertilizer is a substance which contains living microorganisms which, when applied to seeds, plant surfaces, or soil, colonize the rhizosphere or the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to the host plant. They convert nitrogen to ammonia.
121. (b); Poliomyelitis, often called polio or infantile paralysis, is an infectious disease caused by the polio virus.
122. (c); In bio fortification technique plant breeders use breeding to overcome deficiencies of micronutrients and vitamins.
123. (b); Potato is a modified stem.
124. (d); Haematopoiesis refers to the commitment and differentiation processes that lead to the formation of all blood cells from haematopoietic stem cells. In adults, haematopoiesis occurs mainly in the bone marrow.
125. (d); Insulin is a hormone made by the pancreas that allows body to use sugar(glucose) from carbohydrates in the food that for energy or to store glucose for future use.
126. (b); Scurvy is caused by a prolonged deficiency of vitamin C (ascorbic acid) in the diet. Pellagra occurs as a result of niacin (vitamin B-3) deficiency.
127. (a); Lysosomes are membrane-enclosed organelles that contain an array of enzymes capable of breaking down all types of biological polymers. One of its functions is to digest materials taken up from outside the cell. That process is called endocytosis. Hence they are called the Suicidal bag of the cell.
128. (d); Cloves are the aromatic flower buds of a tree.
129. (a); The aorta is the largest blood vessel and artery in the human body.
130. (d); The hormone insulin is a main regulator of the glucose(sugar) levels in the blood. Insulin is produced in the pancreas. To be more specific, it's produced by the beta cells in the islets of Langerhans in the pancreas.
131. (b); Norman Ernest Borlaug was an American agronomist and humanitarian who led initiatives worldwide that contributed to the extensive increases in agricultural production termed the Green Revolution. He is known as Father of Green Revolution.
132. (a); The oxygen liberated during photosynthesis comes from Water.
133. (a); Xylem is one of the two types of transport tissue in vascular plants, phloem being the other. The basic function of xylem is to transport water from roots to shoots and leaves, but it also transports some nutrients.
134. (b); Crown gall is a disease caused by the bacterium *Agrobacterium tumefaciens*, which enters the plant through wounds in roots or stems and stimulates the plant tissues to grow in a disorganised way, producing swollen galls.
135. (b); The Eustachian tube, also known as the auditory tube or pharyngotympanic tube, is a tube that links the nasopharynx to the middle ear. It is a part of the middle ear.
136. (a); The cerebellum is a region of the brain that plays an important role in motor control. It may also be involved in some cognitive functions such as attention and language, and in regulating fear and pleasure responses, but its movement-related functions are the most solidly established. The cerebellum does not initiate movement, but it contributes to coordination, precision, and accurate timing.
137. (b); Agronomy is the science and technology of producing and using plants for food, fuel, fiber, and land reclamation. Agronomy has come to encompass work in the areas of plant genetics, plant physiology, meteorology, and soil science.
138. (c); Goiter or goitre is enlargement of the thyroid gland. The most common cause for goitre is IODINE deficiency.
139. (d); All of these gets affected in Weil's disease.



140. (a); Phloem transports food from the leaves to the rest of the plant while xylem transport water and solutes from leaves.
141. (a); Pasteurization is the heat-treatment process that destroys pathogenic microorganisms in certain foods and beverages. It is named after the French scientist Louis Pasteur. It is used to stabilize and remove disease from milk.
142. (b); Cockroach cannot survive in the water because its respiratory organ is trachea.
143. (d); Spiny ant-eater is an egg laying mammal.
144. (c); Humming birds (*Mellisuga Helena*), which live in Cuba, weigh 0.056 ounces and are 2.75 inches in length, is the smallest bird. The bill and tail account for half of this length smallest.
145. (a); Flat footed camels can walk easily in sandy deserts because pressure on the sand is decreased by increasing the area of the surface in contact.
146. (d); Richard Altamann discovered Mitochondria.
147. (a); Copper Sulphate is a fungicide used to control bacterial and fungal diseases of fruit, vegetable, nut and field crops. It is chemical used for destroying fungi in water tanks.
148. (a); Parthenocarpy is the natural or artificially induced production of fruit without fertilization of ovules, which makes the fruit seedless. Banana is a parthenocarpic fruit.
149. (c); The carrot gets its characteristic and bright orange colour from the pigment called carotene.
150. (d); Water in plants is transported by Xylem.
151. (b); The term Vitamin was coined by Casimir Funk.
152. (c); A decomposer is an organism that decomposes, or breaks down, organic material such as the remains of dead organisms. Decomposers include bacteria and fungi. Nutrients are recycled in the atmosphere with the help of them.
153. (d); Scurvy is a disease resulting from a lack of vitamin C.
154. (a); Hyperglycemia is an abnormally high blood glucose level. Hyperglycemia is a hallmark sign of diabetes.
155. (a); The primary use for webbed feet is paddling through water, as the bird pulls its foot backwards through the water, the toes spread apart, causing the webs to spread out and help bird to swim.
156. (c); Skin cancer is caused due to presence of excess arsenic in water.
157. (a); Arboreal is defined as something having the evolutionary characteristics of animals which allow them to live or maneuver through trees. An example of an arboreal part of the chimpanzee's anatomy is its long arms.
158. (b); Cold-blooded creatures take on the temperature of their surroundings. They are hot when their environment is hot and cold when their environment is cold. In hot environments, cold-blooded animals can have blood that is much warmer than warm-blooded animals so their body temperature changes in accordance to temperature of atmosphere.
159. (d); Tortoise has longest span of life.
160. (a); The storage form of glucose in plants is starch, plants use light energy to produce glucose from carbon dioxide. The glucose is used to make cellulose fibers, the structural component of the plant, or is stored in the form of starch granules
161. (b); Proteins are made up of smaller building blocks called amino acids, joined together in chains.
162. (a); The animals which live on sucking blood from others organism body is called sanguinivorous. Mosquito is Sanguinivorous.
163. (a); Liver converts glycogen into glucose and purifies the blood.
164. (b); Saliva contains the enzyme amylase, also called ptyalin, which is capable of breaking down starch into simpler sugars such as maltose and dextrin that can be further broken down in the small intestine.
165. (b); In the nerve cell no division occurs after the birth.
166. (a); The normal range in men is approximately 4.7 to 6.1 million cells/ul.
167. (a); Cytology is a branch deals with study of cells.
168. (b); Heparin is also known as unfractionated heparin, is medication which is used as an anticoagulant.
169. (d); Antibodies are produced by specialized white blood cells called lymphocytes.
170. (b); Arthritis is caused by deposition of uric acid crystals (mono-sodium urate) in joints and fluids within the body gout, is a painful form of arthritis.



171. (b); Plasmodium vivax is a protozoan parasite and a human pathogen, the most frequent and widely distributed cause of recurring malaria. P. vivax is one of the five species of malaria parasites that is responsible for 65% cases of malaria in India.
172. (c); Fear of water is known as hydrophobia. Such type of patients gets afraid from river, lake sea etc. Hydrophobia is the old name of Rabies which is a viral disease. Its virus affects the nervous system.
- 173 (c); Anthophobia is an abnormal and persistent fear of flowers. The term comes from the Greek roots Anthos means flower and Phobos means fear.
174. (d); Meningitis is a disease caused by the inflammation of the protective membranes covering the brain and spinal cord known as meninges.
175. (b); The rotavirus is a group of RNA viruses, some of which cause acute enteritis in humans. Rotavirus is the most common cause of severe diarrhea among infants and young children. It is a genus of double-stranded RNA virus in the family Reoviridae.
176. (a); Hysteria disease is mainly classed in women. It is a genital disease in which the symptoms of anxiety, discomfort and faintness are found.
177. (c); Silicosis is a lung disease that is caused by inhaling tiny bits of silica. Silica is a common mineral, which is part of sand, rock and mineral ores like quartz.
178. (b); A salmonella infection is a bacterial disease of the intestinal tract. A salmonella is a group of bacteria that cause typhoid fever, food poisoning, gastroenteritis, enteric fever and other illnesses. People become mostly through contaminated water of foods.
179. (c); Bubble baby disease (severe combined immunodeficiency, SCID) is often called "bubble boy disease". There are several forms of SCID. The famous 'Bubble Baby Disease' is named so as the suffering baby is treated in a germ-free plastic bubble.
180. (c); Potassium(K) plays a role in every heart beat. A hundred thousand times a day, it helps trigger the heart to squeeze blood through the body. It also helps your muscles to move, nerves to work and kidneys to filter blood. Phosphorus is good for the development of bones whereas iron deficiency leads to anaemia.
181. (d); ADH(Antidiuretic) hormone is released from pituitary gland which is responsible for controlling secretion of urine from kidney.
182. (c); Cobalt-60 is a synthetic isotope of cobalt. Gamma rays are ejected after the bombing of neutrons on cobalt. This is the reason, why it is used in radiation treatment.
183. (a); Arsenic -74 tracer is used to detect the presence of tumours, Sodium -24 tracer is used to detect the presence of blood clots and Iodine-131 tracer is used to study the activity of the thyroid gland. Cobalt-60 is used to treat cancer and carbon -14 is used to date organic material.
184. (a); Bee stings differ from insect bites, and the venom or toxin of stinging insects is quite different. In particular, bee stings are acidic, whereas wasp stings are alkali, so the body's reaction to a bee sting may be very different than to that of a wasp sting.
185. (b); The sympathetic nervous system(SNS) controls the body's responses to a perceived threat and is responsible for the "fight or flight" response. Sympathetic nerve increases rate of heart beat.
186. (b); A vitamin B3 niacin deficiency is attributed to causing the disease called pellagra, which is usually seen in poverty stricken areas or in those with alcoholism. Pellagra symptoms include weak muscles, digestive problems, and skin inflammation and irritation.
187. (c); Eutrophication is one of the most widespread environmental problems of inland waters, and is their unnatural enrichment with two plant nutrients, phosphorus and nitrogen. One important result of lake and reservoir enrichment is increased growth of microscopic floating plants, algae, and the formation of dense mats of larger floating plants such as water hyacinths and Nile cabbage.
188. (a); Liver is the largest gland in human body. It is also the largest(internal) organ in our body and can weigh up to 1.5 kg for a human adult. That is, about 1/50th of the body weight is because of liver.
189. (a); Insulin is a hormone made by the pancreas that allows your body to use sugar(glucose)



from carbohydrates in the food that you eat for energy or to store glucose for future use. Insulin helps keeps your blood sugar level from getting too high or too low.

190. (c); Adrenaline is a hormone secreted by adrenal medulla during stress. This is called as emergency hormone because it initiates quick reaction which makes the individual to think and respond quickly to the stress.
191. (b); Webbed neck is a characteristic of Turner's syndrome.
192. (d); Leptospirosis is a bacterial disease that affects humans and animals. It is caused by bacteria of the genus *Leptospira*.
193. (a); Hepatitis is inflammation of the liver. An inflamed liver can affect people in different ways, causing a loss of appetite, nausea, vomiting and fatigue.
194. (b); Cod Liver Oil is high in omega 3 fatty acids and also provide an excellent source of vitamins A & D.
195. (b); Yeasts are eukaryotic, single-celled microorganisms classified as members of the fungus kingdom.
196. (d); Connective tissue, group of tissues in the body that maintain the form of the body and its organs and provide cohesion and internal support. Examples of connective tissue include adipose, cartilage, bone, tendons, and blood. Skeletal muscle is not a connective tissue.
197. (a); Lichens are symbiotic associations between algae and fungi.
198. (c); Pepper is a flowering vine in the family Piperaceae, cultivated for its fruit which is usually dried and used as a spice and seasoning, known as a peppercorn.
199. (b); Creatinine is normally found in urine. High levels of creatinine in the bloodstream and urine can be an indicator of kidney disease.
200. (b); The thymus gland is located behind sternum and between lungs. Thymosin is the hormone of the Thymus. Thymosin stimulates the development of T cells.
201. (b); Group AB has both A and B antigens on red cells (but neither A nor B antibody in the plasma).
202. (d); In large amounts certain vitamins can be toxic, leading to a condition called vitamin toxicity or vitamin poisoning. Excess vitamin D accumulates in the liver and can cause bone calcification, headaches, weakness, nausea, vomiting, constipation, kidney stones and frequent thirst and urination. Accumulation of Vitamin A causes Toxicity in vitamin A is known as hypervitaminosis A.
203. (d); Ornithophily or bird pollination is the pollination of flowering plants by birds.
204. (b); Vitamin D is necessary for developing and maintaining strong, healthy bones and absorption.
205. (b); Vitamins B contains Nitrogen.
206. (a); Pedology is also called "soil science". It is the study of soils, including their chemical and physical properties as they are in their natural environment.
207. (b); Typhoid fever is an acute infectious illness associated with fever that is most often caused by the *Salmonella typhi* bacteria. It spread through contaminate the source of drinking water.
208. (a); Symbiosis is a relationship between two or more organisms that live closely together. Symbiotic Bacteria responsible for the fixation of atmospheric nitrogen are present in Peas.
209. (a); Children especially in western countries who receive very little sunshine suffer from Rickets.
210. (d); Nitrogen fixation is the process by which atmospheric nitrogen is converted either by a natural or an industrial means to a form of nitrogen such as ammonia.
211. (a); A genetically engineered form of brinjal known as the BT-brinjal has been developed. The objective of this is to make it pest resistant. It is created by inserting a crystal protein gene from the soil bacterium *Bacillus thuringiensis* into the genome of various brinjal cultivars.
212. (b); The Origin of Species published on 24 November 1859, is a work of scientific literature by Charles Darwin which is considered to be the foundation of evolutionary biology.
213. (d); Green banking is different from traditional banking, as green banking focus on promoting environment friendly banking. Green banking means Banks financing pro-environmental projects.
214. (d); Amylase enzyme is present in all members of the animal kingdom except Protozoa. It helps in digesting carbohydrates.
215. (c); The thin-walled, elongated, specialised parenchyma cells, which are associated with the sieve elements, are called companion cells. They are present only in angiosperms



- and are absent in pteridophytes and gymnosperms.
216. (c); Lacrymal glands are situated in the Eye Orbit.
217. (b); Zika virus disease is caused by a virus transmitted primarily by Aedes mosquitoes.
218. (b); The western blot is a widely used analytical technique used to detect specific proteins in a sample of tissue homogenate or extract. Southern blotting is a method used for detection of a specific DNA sequence in DNA samples.
219. (c); Morphology of Chromosomes can be best studied at Metaphase.
220. (c); Respiration
221. (a); Creatine
222. (b); Mitochondria is known as powerhouse of cell.
223. (a); Thyroxine hormone can increase the heart beat, its principal function is to stimulate the consumption of oxygen and thus the metabolism of all cells and tissues in the body.
224. (a); Ecology is the study of the relationships between plants, animals, people, and their environment, and the balances between these relationships.
225. (a); The silkworm is the larva or caterpillar or imago of the domestic silkworm, Bombyx mori. It is an economically important insect, being a primary producer of silk.
226. (b); Blood pressure is measured by instrument called sphygmomanometer also called as blood pressure meter, it is used to measure the pressure of blood in Arteries.
227. (b); Sigmoid colon, a terminal section of the large intestine that connects the descending colon to the rectum and its function is to store fecal wastes until they are ready to leave the body.
228. (c); A tendon or sinew is a tough band of fibrous connective tissue that usually connects muscle to bone and is capable of withstanding tension.
229. (c); Karl Landsteiner discovered the blood group.
230. (c); Penicillin is a secondary metabolite of certain species of Penicillium and is produced when growth of the fungus is inhibited by stress.
231. (d); DTP vaccine is a combination of vaccine that confers immunity to diphtheria, tetanus, and pertussis.
232. (d); Ministry of Health and Family Welfare (MOHFW) has launched Mission Indradhanush on 25th December 2014 with the aim of expanding immunization coverage to all children across India by year 2020.
233. (b); The retina of the eye has two types of light sensitive cells called rods and cones, both are found in the retina. Rods work in low light conditions to help night vision, but cones work in daylight and are responsible for colour discrimination.
234. (d); Blood is red in colour due to the presence of Haemoglobin.
235. (d); Fertilization is the fusion of haploid gametes, egg and sperm, to form the diploid zygote. Sunlight has no direct relation with Fertilization.
236. (c); Salmon is the common name for several species of ray-finned fish in the family Salmonidae.
237. (d); Lichens are widely used as environmental indicators or bio-indicators. Because of their sensitivity lichens are particularly significant biological indicators of air pollution.
238. (c); The study or science of mountains and their formation is called Orology.
239. (c); Oxytocin is an hormone that is normally produced in the hypothalamus and stored in the posterior pituitary gland.
240. (b); Fluoride in toothpastes prevent tooth decay from progressing and can even reverse, or stop, early tooth decay.
241. (a); The brain's limbic system controls emotional expression through the hypothalamus, which has control over the body's emotional responses systems. The hypothalamus is responsible for regulating hunger, thirst, response to pain, levels of pleasure, sexual satisfaction, anger and aggressive behavior, etc.
242. (c); An organism that transmits a disease agent from an infected to a non-infected animal or plant is known as vector.
243. (b); The endocrine glands are widely distributed throughout the body. The pituitary gland, pineal gland and hypothalamus are located in the skull. The thyroid and parathyroid glands are in the neck, and the thymus gland is in the thoracic (chest) cavity.



244. (d); Blue Revolution means the adoption of a package programme to increase the production of fish and marine products.
245. (c); BOD stands for Biochemical Oxygen Demand. It is the amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.
246. (d); Minamata disease is a neurological syndrome caused by severe mercury poisoning.
247. (c); Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds. Amino acids are constituents of protein and act as precursors for many co-enzymes, hormones, nucleic acid, etc.
248. (a); Conditions which increase the rate of evaporation also increase the rate of transpiration. Transpiration is more rapid in hot, dry and windy conditions than it is in still or humid conditions.
249. (d); The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions.
250. (c); The longest bone in the human body is femur.
251. (c); Sphygmomanometer is an instrument for measuring blood pressure.
252. (b); Vitamin C also known as Ascorbic acid is easily destroyed by excessive heat and water, as well as exposure to air.
253. (c); Rickets is a bone disease that affects infants and young children. The child's growing bones fail to develop properly due to a lack of vitamin D. This can result in soft and weakened bones, fractures, bone and muscle pain, and bony deformities.
254. (b); The best-known and most common chromosome abnormality in humans is Down's syndrome, a condition associated with an extra chromosome 21. Down's syndrome individuals also almost invariably develop Alzheimer's disease, a form of dementia that is fairly common among the elderly.
255. (b); According to the American Heart Association (AHA) normal blood pressure is a systolic pressure of less than 120 millimeters of mercury (mm Hg) and a diastolic pressure of more than 80 mm Hg, or 120/80 mm Hg.
256. (c); The Red Data Book is the state document established for documenting rare and endangered species of animals, plants and fungi as well as some local sub-species that exist within the territory of the state or country.
257. (b); An autotroph is an organism that can produce its own food using light, water, carbon dioxide, or other chemicals. Algae, which live in water and whose larger forms are known as seaweed, is autotrophic.
258. (a); The acronym BCG stands for Bacillus Calmette-Guerin, a vaccine against tuberculosis and for the treatment of some bladder cancers.
259. (d); Operation Flood, launched in 1970 is a project of the National Dairy Development Board (NDDB), which was the world's biggest dairy development program.
260. (d); Muscle fatigue refers to the decline in muscle force generated over sustained periods of activity. Intracellular acidosis due mainly to lactic acid accumulation has been regarded as the most important cause of skeletal muscle fatigue.
261. (c); Parietal cells (also known as oxyntic cells), are the epithelial cells that secrete hydrochloric (HCl) and intrinsic factor. These cells are located in the gastric glands found in the stomach.
262. (c); Denitrification is the biological conversion of nitrate to nitrogen gas, nitric oxide or nitrous oxide. It refers to nitrate reduction by bacterial species such as Pseudomonas and Clostridium, usually in anaerobic conditions that ultimately produces molecular nitrogen (N₂). These bacteria use nitrate as an electron acceptor instead of oxygen during respiration.
263. (b); There are primarily three types of sugar: glucose, fructose and sucrose. Of the three sugars, fructose is the sweetest and glucose the least sweet, so typically less fructose can be used than table sugar.
264. (d); Photoperiodism is the development responses of plants to the relative lengths of light and dark periods. It affects the vegetative growth as well as the time of flowering and fruiting in plants.
265. (d); Proteins from animals are called 'first class' proteins - they provide all the essential amino acids, including those that the body



- can't make. Proteins from plants are 'second class' proteins.
266. (d); Most of environmental(air) pollution results from the burning of fossil fuels, such as coal, oil, natural gas, and gasoline to produce electricity and power. All these produce harmful CO₂ or its variants. On the contrary, when hydrogen burns in air, it produces nothing but water vapor.
267. (a); Enzymes are biological molecules(proteins) that act as catalysts and help complex reactions occur everywhere in life. They speed up reactions by providing an alternative reaction pathway of lower activation energy.
268. (c); Kidneys are essential in the urinary system and also serve homeostatic functions such as the regulation of electrolytes, maintenance of acid-base balance, and regulation of blood pressure (via maintaining salt and water balance). They serve the body as a natural filter of the blood, and remove wastes which are diverted to the urinary bladder whereas the antibodies are produced by antigens in the cell.
269. (b); Wheat is a Herb and according to definition herb is a short plant with green, delicate stem. Generally, they have few branches or branchless. These can be easily uprooted from the soil.
270. (c); Reptiles are tetrapod animals in the class Reptilia, comprising today's turtles, crocodilians, snakes, amphisbaenians, lizards, tuatara, and their extinct relatives. Reptiles are cold blooded animals.
271. (c); A pacemaker is a small device that's placed in the chest or abdomen to help control abnormal heart rhythms. This device uses electrical pulses to prompt the heart to beat at a normal rate.
272. (b); Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs.
273. (b); Anemia is a condition in which person don't have enough healthy red blood cells to carry adequate oxygen to the body's tissues. Iron deficiency anemia is caused by a shortage of iron in body. Bone marrow needs iron to make hemoglobin. Without adequate iron, body can't produce enough hemoglobin for red blood cells.
274. (c); Homo sapiens (Latin: "wise person") is the binomial nomenclature (also known as the scientific name) for the only extant human species.
275. (b); A megaspore mother cell, or megasporocyte, is a diploid cell in plants in which meiosis will occur, resulting in the production of four haploid megaspores. At least one of the spores develop into haploid female gametophytes thus making the ratio of functional and degenerate megaspores is 1:3.
276. (d); The term tissue is used to describe a group of cells found together in the body. There are four types of tissues in complex animals, they are connective, muscle, nervous, and epithelial.
277. (d); Femur, or thighbone, is the largest bone in your body. The head of femur fits into your hip socket and the bottom end connects to knee. The two bones beneath knee that make up shin are your tibia and fibula. Your upper and lower legs are connected by a hinge joint.
278. (c); In plant ovules, the chalaza is located opposite the micropyle opening of the integuments. It is the tissue where the integuments and nucellus are joined. Nutrients from the plant travel through vascular tissue in the funiculus and outer integument through the chalaza into the nucellus.
279. (a); A unicellular organism, also known as a single-celled organism, is an organism that consists of only one cell. The main groups of unicellular organisms are bacteria, archaea, protozoa, unicellular algae, and unicellular fungi. These organisms live together, and each cell in the colony is the same. However, each individual cell must carry out all life processes (digestion, respiration and reproduction etc.) to survive.
280. (b); Only certain species of mosquitoes of the Anopheles genus—and only females of those species—can transmit malaria. Malaria is caused by a one-celled parasite called a Plasmodium. Female Anopheles mosquitoes pick up the parasite from infected people when they bite to obtain blood needed to nurture their eggs.
281. (d); Saffron is a spice derived from the flower of *Crocus sativus*, commonly known as the



- "saffroncrocus". The vivid crimson stigmas and styles, called threads, are collected and dried to be used mainly as a seasoning and colouring agent in food.
282. (b); Cytokinins or CKs are a group of chemicals that influence cell division and shoot formation. Ethylene is related with the Climacteric ripening of fruits.
283. (c); The annelids also known as the ringed worms or segmented worms, are a large phylum. The basic annelid form consists of multiple segments. Each segment has the same sets of organs and, in most polychates, has a pair of parapodia that many species use for locomotion.
284. (a); Synapse, also called neuronal junction, the site of transmission of electric nerve impulses between two nerve cells (neurons) or between a neuron and a gland or muscle cell (effector). A synaptic connection between a neuron and a muscle cell is called a neuromuscular junction.
285. (c); Intestinal villi (singular villus) are small, finger-like projections that extend into the lumen of the small intestine. Each villus is approximately 0.5–1.6 mm in length (in humans), and has many microvilli projecting from the enterocytes of its epithelium which collectively form the striated or brush border.
286. (a); When the cow first eats, it chews the food just enough to swallow it. The unchewed food travels to the first two stomachs, the rumen and the reticulum, where it is stored until later.
287. (a); Hemoglobin is the protein inside red blood cells that carries oxygen. Red blood cells also remove carbon dioxide from our body, transporting it to the lungs to exhale.
288. (a); The kidneys are two bean-shaped organs that extract waste from blood, balance body fluids, form urine, and aid in other important excretory functions of the body.
289. (a); Antonie van Leeuwenhoek, a Dutch merchant who has taught himself how to build a microscope discovered Bacteria in 1683
290. (a); A tissue is an ensemble of similar cells and their extracellular matrix from the same origin that together carry out a specific function. Organs are then formed by the functional grouping together of multiple tissues.
291. (a); Plant tissues are categorized broadly into three tissue systems: the epidermis, the ground tissue, and the vascular tissue.
292. (b); Red rot is a disease caused to Sugarcane. Red rot is one of the major constraints in the profitable cultivation of sugarcane in many states of India. It is caused by the fungus *Glomerella tucumanensis*.
293. (c); Connective tissue consists of reticular connective tissue, adipose tissue, cartilage, bone, and blood. Other kinds of connective tissues include fibrous, elastic, and lymphoid connective tissues.
294. (d); Poliomyelitis, often called polio or infantile paralysis, is an infectious disease caused by the poliovirus. Chickenpox, also known as varicella, is a highly contagious disease caused by the initial infection with varicella zoster virus (VZV).
295. (d); Thyroxin is an animal hormone. Thyroxine is the main hormone secreted into the bloodstream by the thyroid gland.
296. (b); A nephron is the basic structural and functional unit of the kidney which is part of excretory system. Its chief function is to regulate the concentration of water and soluble substances like sodium salts by filtering the blood, reabsorbing what is needed and excreting the rest as urine.
297. (d); Vitamin D is produced by the body in response to skin being exposed to sunlight. Vitamin D is essential for strong bones, because it helps the body use calcium from the diet.
298. (d); The thymus gland produces and secretes thymosin, a hormone necessary for T cell development and production. The thymus is special in that, unlike most organs, it is at its largest in children. Once you reach puberty, the thymus starts to slowly shrink and become replaced by fat.
299. (d); Photosynthesis takes place in the presence of chlorophyll and sunlight.
300. (d); AB+ blood group is universal acceptor.
301. (b); Cinnamon is a spice obtained from the inner bark of several tree species from the genus *Cinnamomum*. Cinnamon is used mainly as an aromatic condiment and flavoring additive in a wide variety of cuisines, sweet and savoury dishes, breakfast cereals, snack foods, and traditional foods.
302. (a); Insulin is a hormone made by the pancreas that allows body to use sugar (glucose) from carbohydrates in the food that we eat for



- energy or to store glucose for future use. Insulin helps keeps your blood sugar level from getting too high(hyperglycemia) or too low(hypoglycemia).
303. (c); The pulmonary artery carries deoxygenated blood from the right ventricle to the lungs.
304. (d); Ultraviolet (UV) radiation from the sun or sunbeds is the main cause of skin cancer.
305. (a); Blue Whale is the largest known mammal
306. (a); Ribo Nucleic Acid(RNA) is a polymeric molecule essential in various biological roles in coding, decoding, regulation, and expression of genes.
307. (c); The longest cells in the human body are nerve cells. The longest cells in the human body are the nerve cells whose cell bodies are located in the base of spinal cord and whose axons run down to the ends of toes.
308. (d); Skin color is due primarily to the presence of a pigment called melanin, which is controlled by at least 6 genes. Both light and dark complexioned people have melanin. However, two forms are produced- pheomelanin, which is red to yellow incolor, eumelanin, which is dark brown to black.
309. (d); A disease in which abnormal cells divide uncontrollably and destroy body tissue is called Cancer. It is a non-communicable disease.
310. (d); Mycoplasma is a genus of bacteria that lack a cell wall around their cell membrane. Without a cell wall, they are unaffected by many common antibiotics such as penicillin or other beta-lactam antibiotics that target cell wall synthesis.
311. (b); The most prominent roles of mitochondria are to produce the energy currency of the cell, ATP (i.e., phosphorylation of ADP), through respiration, and to regulate cellular metabolism. This process is known as cellular respiration. It is for this reason that mitochondria are often referred to as the powerhouses of the cell.
312. (b); Pneumatophores are spongy erect roots extending above the surface of the water that facilitate the exchange of oxygen and carbon dioxide for the roots. Produced by a plant growing in water, pneumatophores are specialized root structures (above-ground spongy outgrowths of roots) that grow out from the water surface where inadequate oxygen required for normal respiration of the roots is present.
313. (c); Pancreas and gonads are mixed glands i.e. they are both endocrine and exocrine.
314. (b); Tobacco is a product prepared from the leaves of the tobacco plant by curing them. Tobacco contains the alkaloid nicotine, which is a stimulant and make it harmful for human consumption.
315. (c); Biochemical oxygen demand (BOD, also called biological oxygen demand) is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.
316. (d); The alveoli are located in the respiratory zone of the lungs, representing the smallest units in the respiratory tract. Thus, Alveoli are related to Respiratory system.
317. (c); Lacto-bacillus bacteria are responsible for the formation of curd.
318. (c); Ribs are the long curved bones which form the rib cage. They serve to protect the lungs, heart, and other internal organs. In humans there are normally 12 pairs of ribs.
319. (a); Unicellular Organism reproduce through Cell division.
320. (d); Deoxyribonucleic acid(DNA) is a molecule that carries the genetic instructions used in the growth, development, functioning and reproduction of all known living organisms and many viruses.
321. (b); Estrogen and Progesterone are female hormones.
322. (d); Night Blindness is caused by deficiency of Vitamin A.
323. (b); The right side of the heart collects impure blood from the body and pumps it to the lungs. The left side of the heart collects pure blood from the lungs and pumps it to the body. The left and right sides of the heart are divided by walls called septums.
324. (b); Liver is the largest gland in human body.
325. (c); Mitochondria break Pyruvic Acid down into Carbon dioxide, water and energy.
326. (c); In the primary(growing) plant cell wall, the major components are cellulose, hemicellulose and pectin.
327. (b); SI unit of power is watts. A watt is the power that it takes to do one joule of work in one second.



329. (a); Solanum is a large and diverse genus of flowering plants, which include food crops of high economic importance, the potato, brinjal and the tomato.
330. (b); The first formed primary xylem elements are called Protoxylem.
331. (c); Nereis, Pheretima (Earthworm) and Hirudinaria (blood sucking leech) are examples of Annelida.
332. (d); In the names Mangifera indica (mango), Solanum tuberosum (potato) and Panthera leo (lion), the three names indica, tuberosum and leo, represent the specific epithet respectively.
333. (c); Algae are chlorophyll-bearing, simple, thalloid, autotrophic and largely aquatic (both fresh water and marine) organisms.
334. (d); Animals like annelids and arthropods etc where the body can be divided into identical left and right halves in only one plane, exhibit bilateral symmetry.
335. (b); Red blood cell (RBC) production (erythropoiesis) takes place in the red bone marrow in adults.
336. (b); The later formed primary xylem elements are called Metaxylem.
337. (c); The Phylum Chordata is made up of the most evolved animals. The characteristics of chordates include bilateral symmetry, a segmented body, a ventral heart. They does not have dorsal heart.
338. (d); Platelets, also called thrombocytes are a component of blood whose function (along with the coagulation factors) is to stop bleeding by clumping and clotting blood vessel injuries.
339. (d); They primary xylem tissue in plants is categorized into protoxylem and metaxylem. In stems, the protoxylem lies towards the centre and the metaxylem lies towards the periphery of the organ. This type of primary xylem is called Endarch.
340. (b); Panthera is a genus of chiefly large cats that includes the snow leopard, tiger, leopard, jaguar, and lion, most having the ability to roar.
341. (d); Phloem fibres are made up of sclerenchymatous cells. These are generally absent in the primary phloem but are found in the secondary phloem.
342. (b); When any plane passing through the central axis of the body divides the organism into two identical halves, it is called radial symmetry. Coelenterates, Ctenophores and Echinoderms have this kind of body plan.
343. (a); In the names Mangifera indica(mango), Solanum tuberosum(potato) and Panthera leo(lion), the terms Mangifera, Solanum and Panthera represent the higher level of Taxon.
344. (a); Agar is one of the commercial products obtained from Gelidium and Gracilaria and are used to grow microbes and in preparations of ice-creams and jellies.
345. (b); Taenia(Tapeworm), Fasciola(Liver fluke) are examples of Platyhelminthes Phylum.
346. (b); The male sex accessory ducts include vasa efferentia, epididymis, vas deferens and Rete Testis.
347. (a); The meristem which occurs between mature tissues is known as intercalary meristem. They occur in grasses and regenerate parts removed by the grazing herbivores.
348. (d); Platyhelminthes Phylum are also called flatworms.
349. (d); Tiger, Cats and Dogs is placed in class Mammalia with Order Carnivora.
350. (c); In roots, the protoxylem lies towards periphery and metaxylem lies towards the centre. Such arrangement of primary xylem is called Exarch.
351. (d); Mollusca is a large phylum of invertebrate animals whose members are known as mollusca. Octopus is example of Mollusca Phylum.
352. (b); In male reproductive system, the testes are situated outside the abdominal cavity within a pouch is called Scrotum.
353. (d); The gymnosperms are a group of seed-producing plants.
354. (d); Sycon (Scypha), Spongilla (Fresh water sponge) and Euspongia (Bath sponge) are examples of Porifera Phylum.
355. (d); A multicellular organism grows by Cell division.
356. (b); The male sex organ in a flower is the Stamen.
357. (a); In animals like Annelids, Molluscs, organs have associated to form functional systems, each system concerned with a specific physiological function. This pattern is called organ system level of organization.
358. (a); An RBC count is measured in millions per cubic millimeter(million/mm³). A healthy adult man has, on an average, 5-5.5(in millions) of RBCs in mm³ of blood.



359. (c); Pistil, the female reproductive part of a flower. The pistil, centrally located, typically consists of a swollen base, the ovary, which contains the potential seeds, or ovules; a stalk, or style, arising from the ovary; and a pollen-receptive tip, the stigma, variously shaped and often sticky.
360. (a); Diploblastic cells are having a body derived from only two embryonic cell layers (ectoderm and endoderm, but no mesoderm), as in sponges and coelenterates.
361. (a); Order being a higher category, is the assemblage of families which exhibit a few similar characters
362. (b); Anisogamy (also called heterogamy) is the form of sexual reproduction that involves the union or fusion of two gametes, which differ in size and/or form. Sexual reproduction in Algae that takes place through fusion of two dissimilar size gametes is called Anisogamous.
363. (d); An acoelomate is defined as an animal that does not possess a body cavity. Unlike coelomates (eucoelomates), animals with a true body cavity, acoelomates lack a fluid-filled cavity between the body wall and digestive tract
364. (b); Binomial nomenclature is a formal system of naming species of living things by giving each a name composed of two parts, both of which use Latin grammatical forms.
365. (c); The members of rhodophyceae are generally called red algae, as it imparts often a red colour to the thallus. There are about 400 genera and 4000 species of red algae.
366. (c); Coelenterata is an obsolete term encompassing the animal phyla Cnidaria (coral animals, true jellies, sea anemones, sea pens, and their allies) and Ctenophora (comb jellies). Aurelia (Medusa) and Adamsia (Polyp) are examples of Coelenterata.
367. (b); A chordate is an animal belonging to the phylum Chordata; they possess a notochord, a hollow dorsal nerve cord, pharyngeal slits, an endostyle, and a post-anal tail, for at least some period of their life cycle. It includes fish, amphibians, reptiles, birds, and mammals.
368. (b); The members of Phaeophyceae are popularly called brown algae. The brown colour of this group of algae is due to the possession of a pigment called fucoxanthin.
369. (a); Echinoderm is the common name given to any member of the phylum Echinodermata of marine animals. Asterias (Star fish), Echinus (Sea urchin), Antedon (Sea Lily) are all examples of this.
370. (a); Blood plasma is a yellowish coloured liquid component of blood that normally holds the blood cells in whole blood in suspension; this makes plasma the extracellular matrix of blood cells. It makes up about 55% of the body's total blood volume.
371. (c); Sexual reproduction in Algae that takes place through fusion of two similar size gametes is called Isogamous.
372. (c); Animals in which the cells are arranged in three embryonic layers are called Triploblastic
373. (a); The ovaries are two oval-shaped organs that lie to the upper right and left of the uterus. In other words, the ovaries are located one on each side of the lower abdomen.
374. (c); Algae are the most important photosynthesizing organisms on earth. At least half of the total carbon dioxide fixation on earth is carried out by algae through photosynthesis.
375. (c); An Arthropoda is an invertebrate animal having an exoskeleton (external skeleton), a segmented body, and paired jointed appendages. Locust, Butterfly, Scorpion and Prawn are all examples of Arthropoda phylum.
376. (b); Among plants, three different genera Solanum, Petunia and Datura are placed in Solanaceae family.
377. (a); The members of Chlorophyceae are commonly called Green algae. The members of Chlorophyceae generally grow in fresh water (about 90%) and the rest in saline water, terrestrial habitat etc.
378. (a); The coelom is the main body cavity in most animals lined by mesoderm and is positioned inside the body to surround and contain the digestive tract and other organs.
379. (a); In females, the uterus is single.
380. (b); The members of Phaeophyceae are popularly called brown algae. Members of Chlorophyceae are commonly called green algae. The Rhodophyceae or the Red algae is probably the oldest groups of Eukaryotic Algae.
381. (a); Adamsia palliate (Sea anemone) and Common Sea Pen also known as Pennatula phosphorea are examples of Coelenterata.



382. (c); Kidneys are essential in the urinary system and also serve homeostatic functions such as the regulation of electrolytes, maintenance of acid-base balance, and regulation of blood pressure (via maintaining salt and water balance). They serve the body as a natural filter of the blood, and remove wastes which are diverted to the urinary bladder whereas the antibodies are produced by antigens in the cell. Production or regulation is not a function of antibodies.
383. (c); The iris is a thin, circular structure in the eye, responsible for controlling the diameter and size of the pupils and thus the amount of light reaching the retina. "Eye color" is the color of the iris, which in humans can be green, blue, black or brown.
384. (a); Animal cells do not have chloroplasts but plant cells do.
385. (c); Edward Anthony Jenner was an English physician and scientist from Berkeley, Gloucestershire, who was the pioneer of smallpox vaccine. He is often called "the father of immunology".
386. (a); In the human body, the oxygen is absorbed by the blood stream in the lungs, being then transported to the cells where an elaborated change process takes place. Approximately 65% of human body contains oxygen.
387. (b); Newborns are vaccinated within 48 hours of birth with 0.05 ml and 0.1 ml of freeze dried BCG vaccine procured from Guindy Madras manufactured using Copenhagen 1331 strain containing 0.69 million culturable particles/0.1 ml. BCG vaccine is a live bacterial vaccine given for protection against tuberculosis.
388. (d); Glaucoma is an eye disease in which the optic nerve is damaged in a characteristic pattern. This can permanently damage vision in the affected eye(s) and lead to blindness if left untreated.
389. (c); Insulin storage vesicles in humans and many other species contain high concentrations of $Zn^{(2+)}$ and $Ca^{(2+)}$ ions.
390. (a); Roundworms, or nematodes, are a group of invertebrates (animals having no backbone) with long round bodies. With the exception of the parasitic roundworm that causes trichinosis, mature adult roundworms eventually end up or live in human small intestines and cause infection and disease.
391. (a); Tetanus, commonly called locked jaw, is a bacterial disease that affects the nervous system. Locked jaw syndrome is a disorder that is related to our jaw joint. It causes severe pain and sometimes cannot open the mouth.
392. (a); Proteins are large biological molecules consisting of one or more chains of amino acids, are essential nutrients for the human body. They are one of the building blocks of body tissue, and can also serve as a fuel source.
393. (a); Thalassaemia are forms of inherited autosomal recessive blood disorders that originated in the Mediterranean region. In thalassaemia, the disease is caused by the weakening and destruction of red blood cells.
394. (b); Blood vessel which carries blood(oxygenated) away from the heart, except pulmonary artery are called artery and blood vessel which carry blood(deoxygenated) towards heart except pulmonary vein are called veins.
395. (d); Streptomycin is an antibiotic drug, the first of a class of drugs called aminoglycosides to be discovered, and it was the first antibiotic remedy for tuberculosis.
396. (a); Homeopathy is a system of alternative medicine originated in 1796 by Samuel Hahnemann, based on his doctrine of similia similibus curentur ("like cures like"), according to which a substance that causes the symptoms of a disease in healthy people will cure that disease in sick people.
397. (a); Robert Whittaker was the first to propose the five-kingdom taxonomic classification of the world's biota into the Animalia, Plantae, Fungi, Protista, and Monera in 1969.
398. (c); Branch of biology deals with extinct organisms is Palaeontology.
399. (c); The vitamin which is generally excreted by humans in urine is Vitamin C.
400. (b); Arteries carry oxygenated blood away from the heart to the tissues.
401. (c); A halophyte is a plant that grows in waters of high salinity, coming into contact with saline water through its roots or by salt spray, such as in saline semi-deserts, mangrove swamps, marshes and sloughs and seashores.



402. (a); Arboreal animals are creatures who spend the majority of their lives in trees. They eat, sleep and play in the tree canopy. There are thousands of species that live in trees, including monkeys, koalas, possums, sloths, various rodents, parrots, chameleons, geckos, tree snakes and a variety of insects.
403. (a); Tuberculosis(TB) is an infectious disease usually caused by the bacterium *Mycobacterium tuberculosis*(MTB). It generally affects the lungs, but can also affect other parts of the body.
404. (a); *Azadirachta indica*, commonly known as neem, nimitree or Indian lilac, is a tree in the mahogany family *Meliaceae*.
405. (a); Octopus belongs to the phylum *Mollusca*.
406. (c); Scurvy is caused due to deficiency of Vitamin C.
407. (d); *Achras sapote* is the scientific name of Chiku.
408. (a); Prawn belongs to the phylum *Arthropoda*
409. (a); Ringworm of the skin (*tinea corporis*) is most commonly caused by the fungus *Trichophyton rubrum*, which spreads from one person to another.
410. (b); *Mangifera indica*, commonly known as mango.
411. (d); Non-photochemical quenching(NPQ) is a mechanism employed by plants and algae to protect themselves from the adverse effects of high light intensity.
412. (d); Transpiration is the evaporation of water from plants. It occurs chiefly at the leaves while their stomata are open for the passage of CO₂ and O₂ during photosynthesis.
413. (d); In humans, the most important compounds in this group are vitamin D₃(also known as cholecalciferol) and vitamin D₂(ergocalciferol). Sunlight provides Vitamin D.
414. (c); Saliva contains the enzyme amylase, also called ptyalin, which is capable of breaking down starch into simpler sugars such as maltose and dextrin that can be further broken down in the small intestine.
415. (c); Estrogen and progesterone control and stimulate the growth of Mammary gland.
416. (a); The pleural membrane is thin, moist, slippery and has two layers. The outer, or parietal, pleura lines the inside of the rib cage and the diaphragm while the inner, visceral or pulmonary, layer covers the lungs.
417. (d); An adult human normally has 12 molar teeth.
418. (b); Plants use capillary action to bring water up the roots and stems to the rest of the plant.
419. (d); Beta cells secrete Insulin.
420. (c); When the left ventricle in the human heart contracts, the blood moves to the Aorta. Blood leaves the heart through the aortic valve, into the aorta and to the body.
421. (d); Glaucoma is a disease that damages your eye's optic nerve. It usually happens when fluid builds up in the front part of your eye. That extra fluid increases the pressure in your eye, damaging the optic nerve.
422. (c); Hemoglobin is made up of globin proteins and an iron(metal) rich compound called heme found in RBC involved in transport of oxygen. Each heme group contains iron which is responsible for binding of oxygen.
423. (a); The life span of RBC of man is 120 days.
424. (a); Cellulose is the substance that makes up most of a plant's cell walls.
425. (a); The largest cell in the human body is the female egg, also known as ovum, it's 1000 micrometres in diameter.
426. (b); *Mycoplasma genitalium*, a parasitic bacterium which lives in the primate bladder, waste disposal organs, genital, and respiratory tracts, is thought to be the smallest known organism capable of independent growth and reproduction.
427. (a); The cell is the basic structural, functional, and biological unit of all known living organisms. A cell is the smallest unit of life that can replicate independently, and cells are often called the "building blocks of life". The study of cells is called cytology.
428. (a); Urine color generally ranges from a pale-yellow color to deep amber. This coloring is primarily caused by the pigment urochrome, also known as urobilin.
429. (d); Reptilians are the vertebrate animals which creep and crawl. Examples of organisms belonging to this class *Chelone*(Turtle), *Chameleon* (Tree lizard).
430. (d); Ornithology is the scientific study of birds.
431. (b); Femur or thighbone, is the largest bone in your body.



432. (b); Monocarpic plants are those that flower, set seeds and then die. They flower once in their lifetime.
433. (a); Guttation is the exudation of drops of xylem sap on the tips or edges of leaves of some vascular plants, such as grasses.
434. (c); Trypsin is one of the three principal digestive proteinases, the other two being pepsin and chymotrypsin. In the digestive process, trypsin acts with the other protein as to break down dietary protein molecules to their component peptides and amino acids.
435. (b); Enamel is the hardest substance in the human body and contains the highest percentage of minerals, 96%, with water and organic material composing the rest.
436. (a); Renal artery blood vessel supply blood to kidney.
437. (a); Pericardium is the membrane enclosing the heart, consisting of an outer fibrous layer and an inner double layer of serous membrane.
438. (a); Bile is stored in the Gall bladder.
439. (b); Stomach is not a gland.
440. (c); Hypothalamus control the body temperature.
441. (d); A substance called capsaicin gives chillies their distinctive hot, peppery taste. The chemical stimulates areas of the skin and tongue that normally sense heat and pain, fooling the brain into thinking they are burning.
442. (a); Ringworm of the skin (tinea corporis) is most commonly caused by the fungus *Trichophyton rubrum*, which spreads from one person to another. It can also be caused by *Microsporum canis*, which is spread by cats and dogs.
443. (d); The three organelles that contain DNA are the nucleus, mitochondria and chloroplasts.
444. (b); Ethylene is an organic compound and gaseous substance, which is produced from amino acid. It is responsible for ripening of fruits.
445. (b); Cholera is caused by eating food or drinking water contaminated with a bacterium called *Vibrio cholerae*. Athlete's foot (tinea pedis) is a contagious skin infection caused by the ringworm fungus.
446. (c); Plant anatomy is the study of the internal structure of plants.
447. (a); Insulin is a hormone made by the pancreas that allows your body to use sugar (glucose) from carbohydrates in the food that you eat for energy or to store glucose for future use.
448. (b); The maximum loss of water in transpiration is from stomata.
449. (c); Transpiration is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers.
450. (a); Chickenpox is caused by the varicella-zoster virus, is highly contagious and it can spread quickly.
451. (a); Tomatoes use two colour pigment which are chlorophyll and lycopene. Chlorophyll is for green and lycopene is for red colour.
452. (a); The set of unpaired Chromosomes are called Haploid.
453. (b); Genetic constitution of organism is called Genotype.
454. (b); Chromosomes found in cell which are responsible for characters other than sex are called Autosome.
455. (b); Glycogen is a multibranched polysaccharide of glucose that serves as a form of energy storage in humans, animals, fungi, and bacteria.
456. (b); Deoxyribonucleic acid (DNA) is a nucleic acid that contains the genetic instructions for the development and function of living things.
457. (c); Spleen is known as "grave yard" of RBCs
458. (d); Lysosomes are called as "atom bombs".
459. (a); All cells are surrounded by a plasma membrane. The membrane is composed of phospholipid bilayer arranged back-to-back. The membrane is also covered in places with cholesterol molecules and proteins.
460. (a); 'Rh factor' refers to Rhesus (Rh) factor. The commonly used terms Rh factor are Rh positive and Rh negative.
461. (d); A Corticolous lichen is a lichen that grows on bark.
462. (b); Blubber is the thick layer of fat that keeps whales and other large swimming mammals warm in the cold water.
463. (d); Chondrichthyes is a class that contains the cartilaginous fishes. It lack exoskeleton.
464. (c); A common cold can be caused by different types of viruses.
465. (c); Sponges don't have nervous system present in their body.



466. (b); In amphibian oxygen and deoxygenated blood get mixed.
467. (c); Ginger is a stem and not a root because it has nodes and internodes.
468. (d); Iodine is obtained from algae.
469. (c); Gum Arabic, also known as acacia gum, or meska, is a natural gum. It is made of hardened sap from two species of acacia tree.
470. (b); Wilting of plants is the loss of rigidity of non-woody parts of plants.
471. (b); Spiders belong to a group of animals called "arachnids". Arachnids are a creature with two body segments, eight legs, no wings or antennae. Rest three options are insects. They have six legs, while spider has eight legs. Thus spider is not an insect.
472. (d); Lithophytes are plants that grow in or on rocks. Lithophytes feed off nutrients from rain water and near by decaying plants, including their own dead tissue.
473. (b); Garlic is made up of sulphuric compounds (Ally methyl sulphide) that render the pungent smell to it.
474. (d); Quinine is a major drug used to treat malaria. Quinine is extracted from the bark of Cinchona tree.
475. (c); Fish use gills to breath and gills can only bring in oxygen when moist. Out of water, a fish's gills dries out and then the fish dies.
476. (c); A gene is the basic physical and functional unit of heredity.
477. (a); The skeleon of an adult human body consist of 206 bones.
478. (b); The causes of high blood pressure are not known, but several factors and conditions may play a role in its development, including: Smoking, being overweight or obese, lack of physical activity, too much salt in the diet, too much alcohol consumption, Stress, older age, genetics, family history of high blood pressure, chronic kidney disease, adrenal and thyroid disorders.
479. (d); Ideally, a normal human must have a blood pressure (120/80). This means that systolic pressure around 120 mm Hg and diastolic pressure should be around 80 mm Hg.
480. (c); Blood group AB individuals have both A and B antigens on the surface of their RBCs and their blood plasma does not contain any antibodies. Therefore an individual with type AB blood can receive blood from any group, but cannot donate blood to any group other than AB. They are known as universal recipients.
481. (c); Blood pH is regulated to stay within the narrow range of 7.35 to 7.45, making it slightly basic.
482. (d); Carbon monoxide mainly causes adverse affects in humans by combining with haemoglobin to form carboxyhaemoglobin in the blood. This prevents haemoglobin from carrying oxygen to the tissues, effectively reducing the oxygen-carrying capacity of the blood, leading to hypoxia.
483. (a); Zymase is an enzyme complex that catalyzes the fermentation of sugar into ethanol and carbon dioxide. It occurs naturally in yeasts. Zymase activity varies among yeast strains.
484. (d); Through the process of photosynthesis, green plants have a capacity of manufacturing their food from simple substance as CO_2 and H_2O in presence of light.
485. (c); Anaemia is a condition in which the body does not have enough healthy red blood cells. Red blood cells provide oxygen to body tissues. There are many types of anaemia. Iron deficiency anaemia occurs when your body does not have enough iron. Iron helps make red blood cells.
486. (a); Zidovudine, also known as azidothymidine, is an antiretroviral medication used to prevent and treat HIV/AIDS.
487. (a); Robert Charles Gallo was the director of Institute of Human Virology in the University of Maryland, School of Medicine, Baltimore. He discovered Human T-cell Leukaemia Virus III. This is the factor of most dangerous disease-AIDS.
488. (c); Jaundice forms when there is too much bilirubin in your system. Bilirubin is a yellow pigment that is formed by the breakdown of dead red blood cells in the liver.
489. (c); Measles is a highly contagious respiratory infection which is caused by a virus. It can not be cured by antibiotics whereas leprosy, Tetanus and Cholera can be cured by antibiotics.
490. (d); It is caused by the excessive use of alcoholic beverage. Liver Cirrhosis is a serious condition where normal liver tissue is replaced by scar tissue.



491. (a); Bright's disease is also known as uremia which affects the kidney. It fuses the physiology of kidney; as result, the amount of urea increases in blood.
492. (b); Pneumoconiosis is an occupational lung disease and a restrictive lung disease caused by the inhalation of dust, often in mines. The miners feel difficulty in breathing.
493. (d); Mad cow is a dangerous disease related to the brain of cattle. Distorted protein 'prion' in their brain is the factor of it.
494. (b); Foot and mouth disease is a viral disease the affects cloven hoofed animals, including domestic and wild bovids.
495. (c); Thalassaemia is a genetic blood disorder. In a patient of Thalassaemia, the body is unable to synthesise enough haemoglobin, which causes severe anaemia.
496. (a); Interferons(IFNs) are a group of signaling proteins made and released by host cells in response to the presence of pathogens such as viruses, bacteria, parasites or tumour cells such as in cancer.
497. (d); Typhoid is caused by Salmonella Typhi bacteria. Other three are viral diseases.
498. (b); Gout is a disease caused by high level of uric acid in the blood(hyperuricemia). It causes an attack of sudden burning pain, stiffness and swelling in a joint.
499. (a); As per question; Polio, whooping cough and smallpox can control by vaccination but there is no vaccination available for diabetes. Diabetes is a disease related to pancreas which is caused due to insufficient of insulin in the blood.
500. (d); In large amounts certain vitamins can be toxic, leading to a condition called vitamin toxicity or vitamin poisoning. Excess vitamin D accumulates in the liver and can cause bone calcification, headaches, weakness, nausea, vomiting, constipation, kidney stones and frequent thirst and urination. Accumulation of Vitamin A causes Toxicity in vitamin A is known as hypervitaminosis A.
501. (c); Apiculture - Rearing bees
Horticulture-Study of fruit and flower producing plants
Sericulture - Rearing silk worm.
Floriculture-Study of flowers for decoration work.
502. (b); Gerontology is the study of the social, psychological, cognitive and biological aspects of aging. Oncology is the branch of medical science that deals in treating people suffering from cancer. Teratology is the study of abnormalities of physiological development. Ornithology is a branch of zoology that is related to the study of birds.
503. (d); French biologist Lamarck is best known for his "Theory of Inheritance of Acquired Characters", first presented in 1801. He was the first person to explain the theory of evolution to the public. In 1809, this theory was published in his book 'Philosophie Zoologique'.
504. (d); Starfish or Sea stars are star-shaped echinoderms belonging to the class Asteroidea.
Seahorse is the name given to 54 species of small marine fishes of the genus Hippocampus which is bony fish.
505. (d); Quinine is a major drug used to treat malaria. Quinine is extracted from the bark of Cinchona tree.
506. (b); Lycopene pigment, which is a red colour carotene is responsible for the redness of tomato.
507. (b); The law of Inheritance was discovered by Gregor Johann Mendel. He is known as the father of genetics.
508. (d); A lymphocyte is one of the three sub types of white blood cell in a vertebrate's immune system. Lymphocytes circulate in blood and lymph fluid is found in body tissues including the spleen, thymus, bone marrow, lymph nodes, tonsils, and liver. B-Lymphocytes and T-Lymphocytes are the two main types of lymphocytes.
509. (b); Individuals with blood group 'O' are a universal donor because their red blood cells have neither A nor B antigens on their surface. So, the blood of a person having O group can be given to people with any blood group.
510. (a); Vitamin C is helpful in iron absorption whereas vitamin D helps in absorption of magnesium and calcium.
511. (b); Vitamin B and C are water soluble vitamins whereas A, D, E and K are fat-soluble Vitamins.
512. (c); Secretin is a hormone that stimulates pancreas for the production of digestive juice. Secretin also helps to regulate the pH of the duodenum by inhibiting the secretion



of gastric acid from the parietal cells of the stomach. It also stimulates the contraction of the pancreas.

513. (d); Bile is a fluid that is made and released by the liver and stored in the gallbladder. It is stored and concentrated in the gallbladder unit which is needed to digest food. In adults, the gallbladder measures approximately 8 centimetres in length and 4 centimetres in diameter.
514. (c); The acid produced by ants is called formic acid. Chemically it is a simple carboxylic acid.
515. (c); Magnetic resonance imaging (MRI) is a test that uses to make pictures of organs and structures inside the body.
516. (b); Lexicography is related to a glossary of language design, compilation, the evaluation of general dictionaries.
517. (a); The genetic experiment Mendel did with pea plant and published his result in 1865.
518. (c); Dinosaurs lived between 230 and 65 million year ago, in a time known as Mesozoic Era.
519. (c); The Red Sea is a seawater inlet of the Indian Ocean, lying between Africa and Asia. An algae, of phylum Cyanobacteria called *Trichodesmium erythraeum* is present in this sea. It contains abundant quantities of pigments, phycobilin, phycoerythrin and phycocyanin, due to which the sea appears red or pinkish.
520. (b); A xerophyte is a species of plant that has adapted to survive in a dry environment.
521. (c); Lakes and rivers are frozen when the outer temperature decreases below the freezing point in winter. But only the upper layer freezes in this condition. Water remains in liquid form below the upper layer. So fishes and other aquatic creatures can survive even in a frozen lake.
522. (b); Yeasts, molds and mushrooms are example of fungi.
523. (c); Azolla has the capability of nitrogen-fixing. That is way it is being widely used as a bio-fertilizer, especially in parts of southeast Asia.
524. (b); Pyorrhoea, or Periodontal disease to give it a proper medical term, a disease of the gums.
525. (b); The stapes is the lightest stirrup-shaped bone and the smallest bone in the human body found in the middle of humans ears.
- While femur is the largest bone in the human body.
526. (c); The temperature of the human body neither decreases in winters nor increases in summers. The usual temperature of the human body is 98.4° F or 37°C and is controlled by the hypothalamus in the brain.
527. (a); Blood perform many important functions within the body including supply of oxygen to tissues (bound to haemoglobin, which is carried in red cells), the supply of nutrients such as glucose, amino acids and fatty acids.
528. (b); Bomboo is a type of Grass.
529. (b); White blood corpuscles (WBCs) are disease-fighting cells found in blood. When our blood is infected by any harmful bacteria or virus at any in the body, white bloods corpuscles reaches there and eats up or destroys these harmful outsiders.
530. (b); As per the question, groundnut is the richest source of protein. Rice is the best source of carbohydrate and apple is known for the richness of antioxidants.
531. (b); Ichthyology - Study of fish.
Entomology - Scientific study of insects.
Parasitology - Study of parasitic organisms.
Malacology - Study of molluscs.
532. (a); Hydroponics is a subset of hydroculture and is a method of growing plant using mineral nutrients solutions in water without soil.
533. (d); Dolphins are highly intelligent marine mammals and are part of the family of toothed whales. India has declared Ganga Dolphin as the national aquatic animal of India.
534. (b); Turmeric is obtained from the stem of the plant.
535. (b); Camels have some special abilities which enable it to walk for a long distance over sandy desert hills when there is neither water nor vegetation. That is why it is called "Ship of Desert". A camel can drink more than 100 litre of water at once and they store it in their intestine for future needs.
536. (c); Opium is the dried latex. The dried latex is obtained from the unripe fruit, by making shallow cuts.
537. (c); Mitochondria are sometimes described as "the powerhouse of the cell" as they generate energy.
538. (b); The skeleton of an adult human body consists of 206 bones. It is composed of 213 bones in a child, which decreases to 206



- bones by adulthood after some bones have fused together.
539. (a); Blood is a special connective tissue consisting of a fluid matrix, plasma, and formed elements. The total volume of blood in normal adult human being is 5-6 litres.
540. (a); Dialysis is a process for removing waste and excess water from the blood and is used primarily as an artificial replacement for lost kidney function in people with kidney failure. Dialysis filters out unwanted and fluids from the blood.
541. (c); A major constituent of human kidney stones is calcium oxalate.
542. (b); Sickle cell anemia is an inherited blood disorder that causes chronic anemia, periodic episodes of pain, and other complications. In sickle cell anemia, the red blood cells become rigid and shaped like crescents, or sickles, rather than being flexible and round. This change in shape prevents red blood cells from getting into small blood vessels. As a result, the tissues do not get enough oxygen. Lack of oxygen can cause pain and damage in the arms, legs, and organs (e.g., spleen, kidney, brain).
543. (b); Blood is a fluid connective tissue which coagulates in few minutes after ejecting from the body which called as blood clots. In process of blood clotting Vitamin K are involved.
544. (c); Nightblindness is caused due to deficiency of vitamin A, Rickets caused due to deficiency of vitamin D, Scurvy is caused by deficiency of vitamin C and Beri-Beri is result of deficiency of Vitamin B1.
545. (c); A hormone produced in the pancreas by islets of Langerhans, which regulates the amount of glucose in the blood. The lack of insulin causes diabetes.
546. (c); Hydrophytes or aquatic plants are plants that have adapted to live in an aquatic environment (saltwater or freshwater). They are also referred as macrophytes. These plants require special adaptations for living submerged in water or at the water's surface. Plants growing on saline soils or water are called halophytes.
547. (c); Fish use gills to breath and gills can only bring in oxygen when moist. Out of water, a fish's gills dries out and then the fish dies.
548. (c); The deoxyribose is sugar found in DNA. It is a variant of five carbon sugar called ribose.
- The DNA is an informational molecule found mainly in the nucleus of the cell.
549. (a); The human rib cage is made up of 12 paired (total 24 ribbone) rib bones. Each are symmetrically paired in right and left side. The ribs are flat, thin bones that together with the sternum make up the ribcage. The ribs provide protection for vital organs in the upper body, including the heart and lungs.
550. (b); The red colour of red blood cells in the blood is due to the combining of a protein known as haemoglobin with oxygen. Red blood cells are also called erythrocytes which are found only in the blood of vertebrates. There is no nucleus inside the red blood cells.
551. (b); Trypsin, ptyalin, and pepsin are digestive enzymes whose secretion is performed by pancreas, salivary gland and stomach respectively. Gastrin is a peptide hormone that stimulates secretion of gastric acid(HCl) by the parental cells of the stomach and aids in gastric motility. It is released by delta cells of the pancreas.
552. (b); The source of Vitamin D is sun rays. In fact, vitamin D is synthesized in our dermal cell by sun rays which is released in the blood. Besides of sun ray, Vitamin D is obtained from butter, the yolk of egg, liver, and kidney, etc. Rickets in children and osteomalacia in adults occur due to deficiency of Vitamin D. Together with Calcium deficiency of vitamin D causes osteoporosis in older adults.
553. (c); Vitamin A is needed by the retina of the eye in the form of retinol, which combines with protein opsin to form rhodopsin, the light absorbing molecules necessary for both low light (scotopic vision) & colour vision.
554. (a); Rickets is caused by deficiency of Vitamin D, Beri-beri is caused by a deficiency of B1. Nyctalopia or night blindness is caused due to deficiency of vitamin A and scurvy is caused due to deficiency of Vitamin C.
555. (b); Adrenaline is commonly known as the 'fight or flight hormone'. Adrenaline is a hormone released from the adrenal glands and its major action together with nor-adrenaline is to prepare the body for fight or flight. Adrenaline(Epinephrine) causes dilation of blood vessels(Vasodilation) which supply the brain, skeletal muscles, heart, lungs, liver, adipose tissues, sensory organs etc.



- Due to increased blood supply. These organs become very active and excited inducing alarm reaction, contraction of cardiac muscles intensify, increasing both rate and force of heartbeat, pulse rate, arterial pressure and cardiac output.
556. (b); Ginger::Rhizome
Potato::Tuber
Onion ::Bulb
557. (c); Itai-Itai disease is caused by prolonged poisoning of cadmium. The first documented occurrence of mass cadmium poisoning in the world occurred in 1950 in Toyama Prefecture in Japan. However, for the first time, the disease was reported in 1912.
558. (d); Leukaemia is a type of cancer that usually begins in the bone marrow and result in a high number of abnormal white blood cells. Symptoms may include bleeding and bruising problems, feeling tired, fever and an increased risk of infection. The diagnosis is typically made by blood tests or bone marrow biopsy.
559. (d); The correctly matched list is:
Plague -Bacteria
AIDS -Virus
Baldness - Fungus
Malaria -Protozoa
560. (d); Viticulture is the science, production, and study of grapes.
561. (b); Cro-magnon is a common name that has been used to describe the first early modern humans. However, recent research suggests that the physical dimensions of so-called "Cro-magnon" are not sufficiently different from modern humans to warrant a separate designation.
562. (b); Chillies are valued principally for their high pungency and colour. Pungency in chillies is due to the active constituent "Capsaicin" an alkaloid which is extracted from chillies and is used to the medicine.
563. (d); Trophic level-I includes all autotrophs which synthesize their food by themselves. All green plants belong to this trophic level.
564. (c); Nearly 99% of the mass of human body consists of just six chemical elements: oxygen, carbon, hydroge, nitrogen, calcium and phosphorus. Oxygen is the most abundant element in the human body. It is mainly found in the form of water.
565. (a); Nails are usually made up of thick and multiple layers of a type of protein known as α - keratin and are composed of dead tissues. They are devoid of any nerves and blood vessels and therefore we do not feel any pain while the nails are being cut.
566. (d); The brain is composed of the cerebrum, cerebellum, and brainstem. So brain is responsible for all of above three.
567. (d); Karl Landsteiner was an Austrian biologist and physician. He is noted for having first distinguished the main blood groups in 1900.
568. (c); Enzymes are biological molecules(proteins) that act as biocatalysts and help complex reactions occur everywhere in life. These are basically proteins and perform chemical transformations on organic compounds.
569. (a); Oxygen gas produced by photosynthesis comes from water.
570. (d); Vitamin B12(Cyanocobalamin) is a water soluble vitamin. It contains a metallic ion cobalt.
571. (d); Lactobacillus bacteria causes milk to spoil.
572. (b); Chloroplast is considered as cell within a cell because it contains its own DNA. Hence, it is a semiautonomous organelle. It helps in photosynthesis.
573. (a); Near-sightedness or myopia as it is medically termed is a vision condition in which close objects are seen clearly, but objects faraway appear blurred. It can be corrected by wearing concave or divergent lenses.
574. (b); Encephalitis virus is the causing factor of Japanese encephalitis.
575. (b); Pedology deals with the study of soil formation, soil morphology, and soil classification.
576. (c); The botanical name of papaya is 'Carica papaya'. It is rich in carotene, which is a precursor of vitamin A. The papain enzyme presented in papaya is helpful in digestion. The yellow colour of papaya is due to present of caricaxanthin.
577. (c); The chemical composition of linseed(cotton) is as follows-
Cellulose - 91.00%
Water - 7.85%
578. (b); In humans, each cell normally contains 23 pairs of chromosomes, a total of 46.
579. (a); The strongest muscle based on its weight is the masseter. With all muscles of the jaw working together, it can close the teeth with a force as great as 55 pounds (25 kilograms)



- on the incisors or 200 pounds(90.7 kilograms) on the molars.
580. (d); A heart attack-medically was known as a myocardial infarction. The symptoms of heart attack include; pain or discomfort in one or both arms, back, neck, jaws or stomach. Shortness of breath with or without chest discomfort other signs such as breaking out in a cold sweat, nausea of lightheadedness. As with men and women's most common heart attack symptom is chest pain or discomfort.
581. (c); Each 'heartbeat' consist of a contraction and relaxing of the heart muscles. When the heart contracts, it pumps blood through the blood vessels. When it relaxes, it draws blood in. It takes rest between relaxation and contraction.
582. (b); In humans, other mammals and birds, the heart is divided into four chambers: upper left and right atria; and lower left and right ventricles.
583. (a); Blood is a liquid connecting tissue. It flows inside the blood vessels and is viscous thick fluid.
584. (b); Plants use only certain colours from light for the process of photosynthesis. The chlorophyll absorbs blue, red and violet light rays. Photosynthesis occurs more in blue and red light rays and less or not all in green light rays.
585. (b); Fats have highest calorie value per unit because of its higher rate of oxidation due to less oxygen.
586. (d); Thiamine (Vitamin B1) is a water-soluble vitamin that is necessary for carbohydrate and amino acid metabolism.
587. (b); Adrenaline is commonly known as the 'fight or flight hormone'. Adrenaline is a hormone released from the adrenal glands.
588. (a); Platelets are rapidly decreased due to dengue fever. These are important to prevent more bleeding in body. So due to decreasing level of platelets the patient suffers from an excess of internal bleeding.
589. (c); DPT Vaccine refers to a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis (A whooping cough) and tetanus.
590. (d); Vermiculture means worm growing or worm farming. When earthworms are used primarily for the production of compost, the practice is referred to as vermicomposting.
591. (d); Extinct mammoth is more closely related to today's African elephant or Asian elephant. Modern elephants and woolly mammoths share a common ancestor, that lived about 7 million years ago.
592. (c); Cloves are the aromatic closed, dried floral bud, which is used in Ayurvedic medicine, making food and as an anodyne for dental emergences.
593. (b); Hydrophytes or an aquatic plants are plants, that have adapted to live in an aquatic environment (salt water or fresh water).
594. (c); Mendel's principle of inheritance is based on sexual reproduction.
595. (a); Vitamins are organic compounds and a vital nutrient that an organism requires in limited amounts.
596. (c); Colour blindness is a sex-linked genetic disorder. It does not relate to vitamin D. The deficiency of Vitamin A causes night blindness. Vitamin B3 is also called niacin. Its deficiency causes pellagra. The deficiency of folic acid causes anaemia.
597. (b); The pancreas is a mixed gland which secretes digestive enzyme and the beta cells of islets of Langerhans secrete insulin, alpha cells secrete glucagon, delta cells secrete somatostatin hormone. If the pancreas is defective by any of the reason, then the formation of insulin and glucagon are affected badly.
598. (d); The plant hormones are generally classified into five groups,
These are :
(i) Abscisic acid (ii) Auxins
(iii) Cytokinins (iv) Ethylene
(v) Gibberellins
- 599.(b); Insulin is a hormone which plays an important role in the regulation of blood glucose level. The main source in insulin from the roots of dahlias and Beta β -cells of the pancreas.
600. (a); The liver is responsible for the detoxification of alcohol. Liver detoxify harmful substances through the complex chemical reactions.
601. (c); Blue baby syndrome is an illness that begins when a large amount of nitrates in water are ingested by an infant and converted to nitrite by the digestive system.
602. (c); Polio is a highly contagious viral infection that can lead to paralysis, breathing problems or even death. The polio virus



enters into the body through polluted food and water.

603. (d); AIDS (Acquired immune deficiency syndrome or acquired immunodeficiency syndrome) is a syndrome caused by a virus called HIV (Human Immunodeficiency Virus).
604. (a); Leprosy is caused by a slow-growing type of bacteria called Mycobacterium leprae (M.leprae).
605. (c); The number of rings indicates the number of years the tree lived.
606. (d); Antony Van leeuwenhoek is regarded as the father of microbiology. He is known for the discovery of bacteria.
607. (a); Whooping cough is caused by a bacterium called Bordetella pertussis. Polio is caused by virus; Small pox is also caused by virus. All the three can be prevented by vaccination. Diabetes is a disease associated with insulin imbalance which cannot be prevented by vaccination.
608. (b); Indian scientist Jagadish Chandra Bose discovered that plants and trees also have a life.
609. (d); Dolphins are highly intelligent marine mammals and are part of the family of toothed whales. India has declared Ganga Dolphin as the national aquatic animal of India.
610. (d); CDRI (central Drug research institute) is located in Lucknow.
611. (d); Jatropha Curcas, the plant is considered a future feedstock for biodiesel production. The seeds of these plant are used as biodiesel. Biodiesel has become more attractive because of its environmental benefits and it is obtained from renewable resources.
612. (a); Golden rice is a variety of rice(Oryza sativa) produced through genetic engineering to biosynthesize beta-carotene, a precursor of vitamin A, in the edible parts of rice.
613. (a); Oxygen is released as a by-product in the process of photosynthesis by green plants.
614. (d); The vaccine of BCG should be given just after the birth of a baby to prevent T.B.
- 615 (c); An ELISA test may be used to diagnose:
- HIV(the virus that causes AIDS)
 - Lyme disease.
 - Pernicious anaemia
 - Rotavirus
 - Syphilis
616. (d); An allergy is a reaction by your immune system to some-thing that does not bother most other people. People who have allergies often are sensitive to more than one thing. Asthma is caused by allergy.
617. (b); Polio vaccine was discovered by Jones Salk.
618. (d); Haemophilia is a genetic sex-linked disease in which blood clotting takes a long time in a patient (up to 24 hours) due to lack of thromboplastin protein in blood plasma.
619. (a); Arsenic - 74 tracer is used to detect the presence of tumours.
620. (b); Philatelist collects postage stamps.
621. (c); Potatoes grow underground, but the part we eat is not a root. It is an underground stem called a tuber.
622. (b); Cactus, calotropis, aloe, etc. are desert plants which have the capability to complete their life-cycle even in a dry atmosphere. The root system of these plants become taller in search of water from the soil and their stems are small, adapted and underground sometimes.
623. (b); Gene mapping is the method used for determining the location of gene and relative distances between genes on a chromosome. The essence of all genome mapping is to place a collection of molecular markers onto their respective positions on the genome. Molecular markers come in all forms. Genes can be viewed as one special type of genetic markers in the construction of genome maps and mapped the same way as any other markers.
624. (c); Red blood cells (RBCs) or red blood corpuscles also called erythrocytes are the most common type of blood cell and he vertebrate organism's principal means of delivering oxygen(O₂) to the body tissues- via blood flow through the circulatory system. RBCs take up oxygen in the lungs or gills and release it into tissues while squeezing through the body's capillaries. The cytoplasm of erythrocytes is rich in haemoglobin, an iron-containing biomolecule that can bind oxygen and is responsible for the red colour of the cells.
625. (c); Calcium Oxalate is a chemical compound that forms envelope shaped crystals, known in plants as raphides. A major constituent of human kidney stones is calcium oxalate.
626. (c); Photosynthesis takes place primarily in leaves and partially in stems. It takes place within specialized cell structures called



chloroplasts. A leaf has a petiole or the stalk and a lamina, the flat portion of the leaf. As its area is broad, the lamina helps in the absorption of sunlight and carbon dioxide during photosynthesis. Photosynthesis takes place in the chloroplasts that have chlorophyll present in them. It is the chlorophyll that have chlorophyll present in them. It is the chlorophyll that absorbs light energy from the sun. There are tiny pores called stomata that function as roadways for carbon dioxide to enter and oxygen to leave the plant.

627. (c); Napthoquinone is the chemical name of Vitamin-K. It is known as anti-haemorrhagic factor. Its sources are green leaves, egg, liver & intestinal bacteria etc. Sterility is related with deficiency of vitamin E.
628. (a); Milk contains a protein casein. This protein gives milk its characteristic the white colour. The curd forms because of the chemical reaction between lactic acid bacteria and casein.
629. (a); Progesterone hormones are related to uterus and menstrual cycle of female. Testosterone is secreted by testis of male. Thyroxine is secreted by thyroid gland. Insulin is secreted by pancreas.
630. (b); The deficiency of iodine causes goiter in which the neck becomes thicker. Anemia is caused by iron deficiency. Vitamin A & B are useful to prevent night blindness and beri-beri respectively.
631. (d); Correctly matched list-
 Khaira -Zinc deficiency
 Anaemia -Iron deficiency
 Goitre -Iodine deficiency
 Scurvy -Vitamin C deficiency
632. (b); Karnal Bunt is a fungal disease caused by the smut fungus *Tilletia indica*. It affects the quality of wheat. It was first reported in 1931, infecting wheat growing near the city of Karnal, Haryana.
633. (b); Golden rice was developed by Gurdev Singh Khush, a chief breeder at Philippines-based Rice Research Institute(RRI). The research for super rice started in 1989. Gurdev Singh Khush is an agronomist and geneticist who along with mentor Henry Beachell, received the 1996 World Food Prize for his achievements in enlarging and improving the global supply of rice during a time of exponential population growth.
634. (b); The matrix comprises the major constituents of bone. It has inorganic and organic parts. The inorganic is mainly crystalline mineral salts and calcium, which is present in the form of hydroxyapatite. The matrix is initially laid down as unmineralized osteoid mineralisation involves osteoblasts secreting vesicles containing alkaline phosphatase. This cleaves the phosphate groups and acts as the foci for calcium and phosphate deposition.
635. (a); The correctly matched is-
 5 June- World Environment Day
 1 December - World AIDS Day
 5 September- Teachers Day
 16 October- Food Day
636. (a); Heparin is an anticoagulant (blood thinner) that prevents the formation of blood clots in blood vessel. Heparin is used to treat and prevent blood clots in the veins, arteries, or lung.
637. (d); Lysosomes are called the digestive bags and also suicide bags. This is because they contain enzymes that help the cell to digest the food eaten by the organism.
638. (b); Mitochondria are tiny organelles inside cells that are involved in releasing energy from food. This process is known as cellular respiration. It is for this reason that mitochondria are often referred to as the power houses of the cell.
639. (a); The small intestine consists of three parts. The first part, called the duodenum, connects to the stomach. The middle part is the jejunum. The third part, called the ileum, attaches to the colon.
640. (c); Necrosis is the death of most or all of the cells in an organ or tissue due to disease, injury, or failure of the blood supply.
641. (a); Platelets are tiny cell fragments that are found within our blood. whenever there is a cut the activated platelets continue to arrive on the scene through the bloodstream. They stick together and become caught in the web of fibrin. Platelets are compulsory for blood caogulation.



642. (b); The Ostrich is the largest living species of bird in the world. It is unique in its appearance, with a long neck and legs and it can run at maximum speeds of about 70 km/h or 43 mph.
643. (b); Blood groups were discovered by Karl Landsteiner.
644. (a); The majority of oxygen in the body is transported by hemoglobin, which is found inside red blood cells.
645. (b); Fats are stored in fat cells known as adipocytes.
646. (c); Stem cells comes from embryo.
647. (a); 'Genera Plantarum' was written by Carl Linnaeus.
648. (b); Bat is the mammal that can fly.
649. (c); 98.6° F is the normal body temperature of human being.
650. (d); Jonas Edward Salk discovered polio vaccine.
651. (a); The primary use for webbed feet is paddling through water, as the bird pulls its foot backwards through the water, the toes spread apart, causing the webs to spread out and help bird to swim.
652. (c); Skin cancer is caused due to presence of excess arsenic in water.
653. (a); Arboreal is defined as something having the evolutionary characteristics of animals which allow them to live or maneuver through trees. An example of an arboreal part of the chimpanzee's anatomy is its long arms.
654. (b); Cold-blooded creatures take on the temperature of their surroundings. They are hot when their environment is hot and cold when their environment is cold. In hot environments, cold-blooded animals can have blood that is much warmer than warm-blooded animals so their body temperature changes in accordance to temperature of atmosphere.
655. (d); Tortoise has longest span of life.
656. (a); The storage form of glucose in plants is starch, plants use light energy to produce glucose from carbon dioxide. The glucose is used to make cellulose fibers, the structural component of the plant, or is stored in the form of starch granules
657. (b); Proteins are made up of smaller building blocks called amino acids, joined together in chains.
658. (b); The animals which live on sucking blood from others organism body is called sanguinivorous. Mosquito is Sanguinivorous.
659. (a); Liver converts glycogen into glucose and purifies the blood.
660. (b); Saliva contains the enzyme amylase, also called ptyalin, which is capable of breaking down starch into simpler sugars such as maltose and dextrin that can be further broken down in the small intestine.
661. (b); In the nerve cell no division occurs after the birth.
662. (a); The normal range in men is approximately 4.7 to 6.1 million cells/ul.
663. (a); Cytology is a branch deals with study of cells.
664. (b); Heparin is also known as unfractionated heparin, is medication which is used as an anticoagulant.
665. (d); Antibodies are produced by specialized white blood cells called lymphocytes.
666. (b);
667. (a); Pasteurization is the heat-treatment process that destroys pathogenic microorganisms in certain foods and beverages. It is named after the French scientist Louis Pasteur. It is used to stabilize and remove disease from milk.
668. (b); Cockroach cannot survive in the water because its respiratory organ is trachea.
669. (d); Spiny ant-eater is an egg laying mammal.
670. (c); Humming birds (Mellisuga Helenae), which live in Cuba, weigh 0.056 ounces and are 2.75 inches in length, is the smallest bird. The bill and tail account for half of this length.
671. (a); Flat footed camels can walk easily in sandy deserts because pressure on the sand is decreased by increasing the area of the surface in contact.
672. (d); Richard Altamann discovered Mitochondria.
673. (a); Copper Sulphate is a fungicide used to control bacterial and fungal diseases of fruit, vegetable, nut and field crops. It is chemical used for destroying fungi in water tanks.



674. (a); Parthenocarpy is the natural or artificially induced production of fruit without fertilization of ovules, which makes the fruit seedless. Banana is a parthenocarpic fruit.
675. (c); The carrot gets its characteristic and bright orange colour from the pigment called carotene.
676. (b); Organic matter
677. (b); The term Vitamin was coined by Casimir Funk.
678. (c); A decomposer is an organism that decomposes, or breaks down, organic material such as the remains of dead organisms. Decomposers include bacteria and fungi. Nutrients are recycled in the atmosphere with the help of them.
679. (d); Scurvy is a disease resulting from a lack of vitamin C.
680. (a); Hyperglycemia is an abnormally high blood glucose level. Hyperglycemia is a hallmark sign of diabetes.
681. (c); Oxytocin is an hormone that is normally produced in the hypothalamus and stored in the posterior pituitary gland.
682. (b); Fluoride in toothpastes prevent tooth decay from progressing and can even reverse, or stop, early tooth decay.
683. (a); The brain's limbic system controls emotional expression through the hypothalamus, which has control over the body's emotional responses systems. The hypothalamus is responsible for regulating hunger, thirst, response to pain, levels of pleasure, sexual satisfaction, anger and aggressive behavior, etc.
684. (c); An organism that transmits a disease agent from an infected to a non-infected animal or plant is known as vector.
685. (b); The endocrine glands are widely distributed throughout the body. The pituitary gland, pineal gland and hypothalamus are located in the skull. The thyroid and parathyroid glands are in the neck, and the thymus gland is in the thoracic(chest) cavity.
686. (d); Blue Revolution means the adoption of a package programme to increase the production of fish and marine products.
687. (c); BOD stands for Biochemical Oxygen Demand. It is the amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.
688. (d); Minamata disease is a neurological syndrome caused by severe mercury poisoning.
689. (c); Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds. Amino acids are constituents of protein and act as precursors for many co-enzymes, hormones, nucleic acid, etc.
690. (a); Conditions which increase the rate of evaporation also increase the rate of transpiration. Transpiration is more rapid in hot, dry and windy conditions than it is in still or humid conditions.
691. (d); The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions.
692. (c); The longest bone in the human body is femur.
693. (c); Sphygmomanometer is an instrument for measuring blood pressure.
694. (b); Vitamin C also known as Ascorbic acid is easily destroyed by excessive heat and water, as well as exposure to air.
695. (c); Rickets is a bone disease that affects infants and young children. The child's growing bones fail to develop properly due to a lack of vitamin D. This can result in soft and weakened bones, fractures, bone and muscle pain, and bony deformities.
696. (b); According to the American Heart Association (AHA) normal blood pressure is a systolic pressure of less than 120 millimeters of mercury (mm Hg) and a diastolic pressure of more than 80 mm Hg, or 120/80 mm Hg.
697. (c); The Red Data Book is the state document established for documenting rare and endangered species of animals, plants and fungi as well as some local sub-species that exist within the territory of the state or country.
698. (b); An autotroph is an organism that can produce its own food using light, water, carbon dioxide, or other chemicals. Algae, which live in water and whose larger forms are known as seaweed, is autotrophic.
699. (a); The acronym BCG stands for Bacillus Calmette-Guerin, a vaccine against



tuberculosis and for the treatment of some bladder cancers.

700. (d); Operation Flood, launched in 1970 is a project of the National Dairy Development Board(NDDDB), which was the world's biggest dairy development program

