**Biology Revision for 2nd secondary**

**Choose the correct answer**

1. ----------------element is from macronutrients.
2. Copper
3. Phosphorus
4. Carbon
5. nitrogen
6. Absorption of light energy that is used in photosynthesis occurred by.

a- Grana

b- Stroma

c- chlorophyll

1. Cells of epidermis in plant leaf is impermeable due to precipitation of ----------------- substances
2. Cutin
3. Cellulose
4. Lignin
5. Suberin
6. Dark reactions which occurred in stroma in the presence of Co2 gas and
7. ATP
8. NADP
9. glucose-
10. The first stable organic compound produced in photosynthesis is
11. ATP
12. NADP
13. PGAL
14. Enzyme activity affected by -------
15. PH value-temperature-
16. type of food molecule
17. PH and temperature.
18. Gastric juice in human works on
19. Protein
20. starch
21. vitamins
22. fats.
23. Bile juice plays important role in speed activity of amylase.
24. Lipase
25. maltase
26. Amylase
27. trypsin.
28. The function of large intestine
29. water absorption
30. secretion of enzymes
31. digestion of fats
32. digestion of proteins.
33. Aphid insect is used to study
34. transpiration of water inside plant-
35. transportation inside xylem
36. transpiration of mineral salt
37. transpiration inside phloem tissue
38. The blood that reaches the brain cells leaves the heart from---------------.
39. Right auricle
40. Right ventricle.
41. Left atrium
42. Left atrium
43. Left ventricle.
44. Pulmonary circulation starts from right ventricle and ends at --------------.
45. Liver
46. Right ventricle
47. Right atrium
48. Left atrium.
49. Glycolysis occurs in ----------------.
50. Mitochondria
51. Ribosome
52. Lysosome.
53. Cytosol.
54. When blood exposed to air or to friction with a rough surface , protein substances formed which is called --------------.
55. Thromoplastin
56. Fibrinogen
57. Albumen
58. Heparin.
59. The active enzyme which is converting the fibrinogen into fibrin
60. Heparin
61. Thromboplastin
62. Thrombin
63. Prothrombin
64. The number of ATP molecules that is released from oxidation of one glucose molecule in mitochondria during cellular respiration is ----------------.
65. 38 ATP
66. 24 ATP
67. 36 ATP
68. 32 ATP
69. From plasma proteins that has a role in blood clotting
70. Globulin
71. Fibrinogen
72. Albumen
73. Heparin.
74. Muscle fibers which perform vigorous exercise form a great amount of ----------------- acid.
75. Pyruvic
76. Lactic
77. Citric
78. Acetic
79. During kreb’s cycle------------------ATP released
80. 38
81. Two
82. One
83. Three
84. The complete burning for one glucose molecule in the cell requires repeating of kreb’s cycle
85. Once
86. Twice
87. Three times
88. Four times.
89. Kreb’s cycle is started by combining acetyle CO- A group with fourth carbon compound to form
90. Acetic acid
91. Citric acid
92. Adenine
93. Succinic acid
94. The trachea is lined from inside with
95. Cartilage
96. Mucus membrane
97. Cilia
98. Ribs.
99. From the function of epidermis skin is-------------
100. Absorption of air
101. Excretion of gases
102. Production of sweat
103. Preventing the penetration of bacteria.
104. The urea is extracted from
105. Skin
106. Kidney
107. Liver
108. Lungs
109. The plant loses water through
110. Stomata transpiration
111. Lenticular transpiration
112. Cuticular transpiration
113. All the previous.
114. The high concentration of auxins causes
115. The elongation of root cells
116. An elongation of root hair and stem
117. Inhibition of stem elongation
118. Inhibition of root elongation.
119. The root of plant is --------------
120. Positive geotropic
121. Negative phototropic
122. Positive hydrotropic.
123. All the previous.
124. The nerve respresents
125. Dendrite of a neuron
126. Nonmylinated axons
127. A group of mylinated axons
128. The collection of neuron forming nerve cord
129. The center of reflex action
130. Cerebellum
131. Medulla oblongata
132. Pons varolii
133. Spinal cord
134. All the following glands are affected by the parasympathetic nervous system except
135. Pancreas
136. Adrenal medulla
137. Liver
138. Gastric and salivary glands.

**Write the scientific term of the following**

1. The diffusion of water from high concentration medium to low concentration medium through semi permeable membrane. (----------------------)
2. The ability of plasma membrane to allow substance to pass through. (--------------------)
3. The reactions occurs inside grana during photosynthesis. (--------------------------)
4. The conversion of large food molecules into smaller food molecules by enzymatic action. (------------------------)
5. The enzyme that hydrolyses the proteins into polypeptides in alkaline medium.

(--------------------------)

1. An enzyme that hydrolyses fats and change it to fatty acids. (----------------------)
2. The pressure of water due to the absorption of water by osmosis. (--------------------)
3. The movement of cytoplasm inside the sieve tubes in the phloem. (-------------------------)
4. A material that prevent the blood clot in blood vessels. (------------------------)
5. The process occurs when blood exposed to the air or friction of blood with rough surface.(------------------------)
6. A membrane surrounds the heart for protection. (--------------------)
7. An acid resulted from vigorous exercises and insufficiency of oxygen

 (-------------------)

1. The blood vessel which leaves the liver to pour its content into the upper part of the inferior vena cava.(-----------------------)
2. A compound of 2 carbon atoms which is responsible for starting kerb’s cycle

.(----------------------)

1. The process in which glucose is converted into alcohol and CO2 in yeast.

 (---------------------)

1. They vessels that carry blood to the heart. (-------------------)
2. The valve that controls the passage of blood from left atrium to left ventricle.

 (------------------)

1. A biological process by which the living organism get rid of waste products that are produced from biological processes.(-------------------------)
2. A functional unit of the kidney. (-------------------)
3. The curvature of the plant root to the direction of humidity. (----------------)
4. The system that control the function of the human body. (---------------------)
5. The cells that acts as connective to support nerve. (-----------------------)

**Give reason for**

1. Root hair secrets viscous materials.
2. Micro nutrients are known as trace materials.
3. Ions of some salts move from soil to the cells of roots against concentration gradient.
4. ATP and NADPH2 compounds are known as energy fixing compounds.
5. Gastric juice does not affect the lining of the stomach.
6. Presence of many folds in epithelial cells of small intestine.
7. Presence of companion cells near sieve tube.
8. Cambium is located between xylem and phloem cells.
9. Root pressure don’t explain elevation of water in very high trees.
10. Some seedling when transplanted from a nursery to open soil , fail to grow.
11. It is possible to hear two different sounds of heart beat by the doctor
12. The presence of valves inside the veins.
13. The blood colt doesn’t occur inside the blood vessels.
14. Kreb’s cycle don’t need oxygen.
15. It is preferred to respire by nose than mouse.
16. The alveoli wall is always moist.
17. The wall of left ventricle is thicker than wall of right ventricle.
18. The heart continues to beat regularly after being disconnected from body and cardiac nerve.
19. Root of the plant is positive geotropic and negative phototropic.
20. Presence of Nissil granules in the nerve cell.
21. A lesion or an injury in the nervous centers can be healed although the neurons cannot divide or replace the damage.
22. Transmission of a nerve impulse across the synapse.
23. Presence of lymphatic nodes on certain distances along lymphatic vessels.

**What is meant by ?**

1. Digestion
2. Metabolism
3. Osmosis
4. Imbibition
5. Diffusion
6. Active transport
7. Selective permeability.
8. ATP
9. NADH
10. PGAL
11. Excretion
12. Guttation
13. Transpiration
14. Tropism
15. Geotropism
16. Tropism
17. Sensation
18. Myelin
19. Ranvier‘s nodes.
20. Reflex action
21. Synaptic vesicles.
22. Refractory period.

**What is the function of**

1. root hair
2. starch grain in chloroplast
3. salivary glands
4. pepsin
5. gastric juice
6. liver in digestion process
7. liver in excretion process
8. tongue in mouth
9. xylem
10. phloem
11. trachea
12. urethra
13. bowman’s capsule.
14. Nephron
15. Nervous system.
16. Sensory nerve cells.
17. Sodium and calcium in neuron.
18. Neuron.
19. Capillaries of nose
20. Red blood cells
21. Blood platelets
22. Alveoli

**write a brief note on**

1. Light reaction
2. Dark reaction
3. Gastric juice
4. Digestion in mouth
5. Intestinal juice.
6. Pancreatic juice
7. Oxidative phosphorylation.
8. Formation of blood clot
9. Electron transport
10. Krebs’s cycle.
11. Hepatic portal circulation
12. Pulmonary circulation
13. Excretion process in the nephron
14. Stomatal transpiration
15. Hydathode.
16. Formation of blood clot.
17. Mechanism of transmission of nerve impulse through the nerve fibers

**Compare between**

1. Blood route and lymphatic route.
2. Anabolism and catabolism.
3. Dark and light reaction.
4. Acidic fermentation and alcoholic fermentation
5. Transpiration and guttation.
6. Hydrotropism and phototropism.
7. Sensory neurons and sensation neurons.

**-Draw a diagram showing light reaction**

**Draw a diagram for kreb’s cycle.**

**Match**

|  |  |
| --- | --- |
| **A** | **B** |
| 1. Lipase
 | 1. The hydrogen carrier compound in chloroplast
 |
| 1. ptyalin
 | 1. an enzyme secreted from pancreas , digests protein.
 |
| 1. trypsin
 | 1. **an enzyme changes starch into maltose**
 |
| 1. NADP
 | 1. An enzyme hydrolyses the fats after emulsified by the bile juice.
 |
|  | 1. An enzyme which catalyzes the hydrolysis of protein.
 |

|  |  |
| --- | --- |
| A | B |
| 1. Skin
 | 1. Get rid of carbon dioxide
 |
| 2- lungs  | 1. Responsible for degradation of posinous that absorbed in intestine
 |
| 3- liver  | 1. Get rid of some water, nitrogenous substance, salts, spices
 |
| 4- kidneys  | 1. Get rid of food wastes
 |
|  | 1. Gets rid some water , salt and nitrogenous gases
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