**College Biology Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Photosynthesis and Respiration Quiz Hr. \_\_\_\_\_\_\_\_**

**Multiple Choice Questions: Place the correct answer in the space provided.**

1. \_\_\_\_\_ The **chief** energy currency of all cells is a molecule called

A. cyclic AMP.

B. NADH.

C. ATP.

E. ADP.

1. \_\_\_\_\_ One of the most important **electrons/hydrogen** accepters that is used in photosynthesis and helps run the Dark Reaction is

A. NAD+.

B. NADH.

C. FAD

D. NADP.

1. \_\_\_\_\_ An **electron carrier** that is used to start glycolysis, to release energy from a glucose molecules in a series of gradual steps in the cytoplasm is

A. AMP.

B. ATP

C. NAD+.

D. NADP.

1. \_\_\_\_\_ In eukaryotes, cells with a nucleus, where does glycolysis take place in the cell?

A. Inside the mitochondria

B. Outside the mitochondria

C. Ribosomes of the cell.

D. endoplasmic reticulum of each cell.

E. Golgi bodies of the cell.

1. \_\_\_\_\_ The reaction, **C6H6O6 + 6H2O + 6O2  6 CO2 + 12 H2O**, when it occurs in living cells is known as

A. Aerobic fermentation.

B. Anaerobic fermentation.

C. Cellular respiration.

D. Glycolysis.

1. \_\_\_\_\_ In which of the following steps of glycolysis are two **ATP** molecules are required?

A. The splitting of water.

B. The start of splitting 1 glucose molecule

C. oxidation

D. Electron Transport Chain

1. \_\_\_\_\_ The reaction, **6CO2 + 12H2O + 6 CO2  C6H6O6 + 6H2O + 6O2** when it occurs in living cells is known as
2. glycolysis.

B. fermentation.

C. Krebs cycle.

D. Photosynthesis.

E. Cellular Respiration.

1. \_\_\_\_\_ During **Photosynthesis** oxygen is produced during
2. Light Dependent Reaction
3. The Dark or Light Independent Reaction
4. Alcohol Fermentation
5. Electron Transport Chain
6. \_\_\_\_\_ The process of **photosynthesis** takes place in the \_\_\_\_ of the cell.

1. Inside the mitochondria
2. Outside the mitochondria
3. In the chloroplasts
4. In the ribosomes
5. \_\_\_\_\_The end-product of **glycolysis** is

A. ATP.

B. NAD+.

C. alcohol.

D. ADP.

E. pyruvate.

1. \_\_\_\_\_ In muscle cells, **fermentation** produces \_\_\_\_\_ not alcohol

A. ATP.

B. NADH.

C. pyruvate.

D. kinetic energy.

E. lactic acid.

1. \_\_\_\_\_ During **aerobic respiration** the final acceptor of the hydrogen atoms is

A. oxygen.

B. carbon dioxide.

C. water.

D. glucose.

E. pyruvate.

1. \_\_\_\_\_ How many ATP’s are made due to the **Cellular Respiration**?

1. 3
2. 32
3. 2
4. 36
5. 38
6. \_\_\_\_\_ How many ATP molecules are made per molecule of glucose during the **Krebs Cycle**?
7. 1
8. 2
9. 32
10. 36
11. 38
12. \_\_\_\_\_ The proper **sequence** of **cellular respiration** is

 A. Electron transfer chain, glycolysis, oxidation of pyruvate & Krebs Cycle.

 B. Glycolysis, Krebs Cycle, Oxidation of Pyruvate, & Electron Transport Chain.

 C. Glycolysis. Oxidation of pyruvate, Krebs Cycle & Electron Transport Chain

1. \_\_\_\_\_ NAD, Nicotinamide adenine dinucleotide, reduces to make NADH+. During this process, it transfers enough Energy to add a phosphate to ADP to create ATP. This **process** of **adding a phosphate** is known as
2. Respiration
3. Fermentation
4. Phosphorylation
5. Digestion
6. \_\_\_\_\_ The breakdown of large molecules into energy (ATP), and CO2 and Water is \_\_\_\_\_.
7. Respiration
8. Fermentation
9. Phosphorylation
10. Krebs Cycle
11. \_\_\_\_\_ A series of 10 reactions that starts with the breakdown of Glucose and produces a net gain of 2 ATP and three carbon compound is known as
12. Fermentation
13. Glycolysis
14. Aerobic respiration
15. Anaerobic Respiration
16. Krebs Cycle
17. \_\_\_\_\_ When oxygen is **not** present the cells plants they will form \_\_\_\_\_.
18. Citric acid
19. Salicylic Acid
20. Lactic Acid
21. Alcohol
22. \_\_\_\_\_ During the Calvin Cycle \_\_\_ is required at the start of the reaction
23. Glucose/Sugar
24. Alcohol
25. Carbon dioxide
26. Lactic Acid
27. \_\_\_\_\_ The end product of the Calvin Cycle is \_\_\_\_\_
28. Glucose/Sugar
29. ATP
30. Water
31. Lactic Acid
32. \_\_\_\_\_ In the overall equation for photosynthesis, water is a
33. Product
34. Reactant
35. Both A & B
36. Neither A or B
37. \_\_\_\_\_ The primary pigment used in photosynthesis of plants, algae and cyanobacteria is
38. Carotene
39. Chlorophyll a
40. Chlorophyll b
41. Phychlo-protiens
42. \_\_\_\_\_ Light waves that have the highest amount of energy are on the \_\_\_ end of the visible spectrum.
43. Blue
44. Red
45. Orange
46. Green
47. \_\_\_\_\_ When we exercise, and obtain sore muscles due to the lack of Oxygen present in the muscle cells, is cause due to the production of \_\_\_\_.
48. Alcohol
49. Lactic Acid
50. ATP
51. Water
52. \_\_\_\_\_ Oxidation of pyruvate and the Krebs Cycle along with the Electron Transport Chain occur
53. Inside the mitochondria
54. Outside the mitochondria
55. Inside the chloroplasts
56. Inside the ribosomes
57. \_\_\_\_\_ How many turns of the Krebs Cycle occurs to breakdown one molecule of glucose?
58. 0
59. 2
60. 4
61. 6
62. \_\_\_\_\_ How many turns of the Calvin Cycle occurs to make one molecule of glucose?
63. 0
64. 2
65. 4
66. 6
67. \_\_\_\_\_ The carrier molecule that is used in the process known as Photosynthesis is \_\_\_\_\_.
68. NADP+
69. NAD+
70. ATP
71. LAD
72. \_\_\_\_\_ Animal Cells, without chloroplasts, require an outside source of \_\_\_ & \_\_\_ to make \_\_\_ & \_\_\_.
73. C02 & H2O and Glucose & O2
74. Glucose & H20 and CO2 & O2
75. Glucose & O2 and CO2 & H2O