

Unit 3: Cellular Respiration: Assignment 4-Cellular Respiration Notes ETC

Question 1 (1 point)

The Electron Transport Train requires this Molecule to function. This means it is an aerobic process.

- a Oxygen
- b Nitrogen
- c Lactic Acid
- d Carbon Dioxide

Question 2 (1 point)

The location of the Electron Transport Chain for the breakdown of glucose.

- a ribosome
- b Inner membrane of the mitochondria (cristae)
- c nucleus
- d golgi

Question 3 (1 point)

NADH and FADH produced in the Krebs cycle provide_____ and _____ to pump protons across the inner membrane of the mitochondria.

- a electrons and energy
- b oxygen and water
- c protons and ATP
- d Lactic Acid and Ethyl Alcohol

Question 4 (1 point)

NADH and FADH₂ are reduced to these products as the Hydrogen protons are pumped across the inner membrane in the mitochondria.

- a NAD and FAD
- b NAD⁺ and FAD
- c NAD⁺ and FAD⁺
- d NAD and FAD⁺

Question 5 (1 point)

Protons pumped across the inner membrane of the mitochondria then enter a carrier protein which uses the energy to make this molecule.

- a NADH
- b NAD⁺
- c ATP
- d FADH₂

Question 6 (1 point)

The name of the enzyme which takes energized protons and makes ATP

- a NAD⁺ Oxidation
- b ATP Synthase
- c CO₂ phosphorylation
- d H₂O hydrolysis

Question 7 (1 point)

_____ NADH from the Krebs cycle have enough energy to produce 3 ATP each.

- a 0
- b 1
- c 3
- d 10

Question 8 (1 point)

The total number of ATP produced from 10 NADH in the breakdown of 1 glucose molecule.

- a 30
- b 10
- c 2
- d 0

Question 9 (1 point)

_____ FADH₂ from the Krebs cycle have enough energy to produce 2 ATP each.

- a 10
- b 2
- c 0
- d 4

Question 10 (1 point)

The total number of ATP produced from the 2 FADH₂ molecules produced in the Krebs Cycle.

- a 0 ATP
- b 4 ATP
- c 1 ATP
- d 2 ATP

Question 11 (1 point)

The number of ATP directly made from the Krebs Cycle from 1 glucose molecule

- a 0
- b 1
- c 2
- d 4

Question 12 (1 point)

The net total ATP produced from glycolysis

- a 4 Net ATP
- b 1 Net ATP
- c 2 Net ATP
- d 0 Net ATP

Question 13 (1 point)

The total number of ATP produced from 1 glucose molecule when broken down in glycolysis, Krebs Cycle, and the electron transport chain.

- a 4
- b 0
- c 38 ATP
- d 2

Question 14 (1 point)

The Equation for Cellular Respiration

- a $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$
- b $C_6H_{12}O_6 + 3O_2 \rightarrow 3CO_2 + 3H_2O$
- c $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$
- d $3CO_2 + 3H_2O \rightarrow C_6H_{12}O_6 + 3O_2$

Question 15 (1 point)

$C_6H_{12}O_6$ is sugar (glucose). This is broken down in this process:

- a krebs cycle
- b electron transport chain
- c fermentation
- d glycolysis

Question 16 (1 point)

6 Oxygen Molecules are used in this process of cellular respiration

- a glycolysis
- b electron transport chain
- c fermentation
- d citric acid cycle

Question 17 (1 point)

6 Carbon Dioxide molecules (breathe out) are produced from cellular respiration from this process:

- a Krebs Cycle
- b Glycolysis
- c fermentation
- d Electron transport chain

Question 18 (1 point)

6 Water molecules are produced in this cellular respiration process

- a Krebs Cycle
- b Electron Transport Chain
- c Fermentation
- d Glycolysis

Question 19 (1 point)

Hydrogen from NADH and FADH₂ are used in the electron transport chain to pump protons. After they are done, they bind with oxygen to produce:

- a 6 O₂ molecules
- b 6 H₂O
- c 6 CO₂
- d ATP