

You should write on this paper. Its ok!!!!!!!!!!!!

Name: _____ Period: _____

Instructions:

-Use the Scantron Form to answer the multiple-choice questions.

-Below: Answer 2 of the 3 short long questions. Also answer 1 of the 2 long response questions.

SHORT ANSWER QUESTIONS: (choose 2 of the 3 options) 10 pts each.

23.

a) Write out the equation of cellular respiration. Identify each products and reactants. Identify the location(s) in which the molecule is used or produced (electron transport chain etc).

24.

a) Describe three events which occur in photosystem II and 3 events which occur in photosystem I in photosynthesis.

b) Describe what is used and produced for each system.

c) Identify the source of electrons for both systems.

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25. Fermentation is a process which occurs to allow the recycling of NADH back to NAD⁺. Answer the following questions.

a) Identify the two types of fermentation and provide an example of an organism which uses that fermentation type. Also, identify where this process occurs in the cell.

b) Describe what is used in the process of fermentation and what is produced at the end.

c) If fermentation does not directly produce ATP, what is the purpose of the fermentation process.

LONG RESPONSE QUESTIONS: Choose 1 of the 2 options (10 pts).

26. Provide an accounting for the number of ATP produced in both aerobic and anaerobic respiration.

Glycolysis:

Net ATP produced: _____ NADH Produced: _____ FADH₂ Produced: _____

Link reaction (pyruvate to acetyl-coA)

Direct ATP produced: _____ NADH Produced: _____ FADH₂ Produced: _____

Krebs Cycle

Direct ATP produced: _____ NADH Produced: _____ FADH₂ Produced: _____

Electron Transport Chain:

Direct ATP produced: _____ NADH Produced: _____ FADH₂ Produced: _____

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-How many ATP are produced from 1 NADH: _____

-How many ATP are produced from 1 FADH₂: _____

What is the total number of ATP that can be produced by 1 glucose molecule: _____

27. Briefly describe the 3 stages/parts of the Calvin Cycle. Explain what is used and produced at each stage. Identify where the Calvin Cycle occurs in the chloroplast.