

# Lecture Review: Week 7

**Due** Mar 11 at 11:59pm

**Points** 10

**Questions** 10

**Available** Mar 5 at 12am - Mar 11 at 11:59pm

**Time Limit** None

**Allowed Attempts** Unlimited

## Instructions

### Week 7 Lecture Review

#### Lecture Review Instructions

This lecture review is designed as a capstone quiz over the lecture materials presented this week. There is no time limit for completing a lecture review once you have begun it, and you may take each review an unlimited number of times (your highest submitted score will count towards your grade). You are allowed to use your lecture notes to complete these reviews.

You must submit a completed review by Saturday at 11:59pm in order to receive credit. No late work will be accepted.

Take the Quiz Again

## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	7 minutes	8 out of 10

⚠️ Correct answers will be available on Mar 12 at 12am.

Score for this attempt: 8 out of 10  
Submitted Mar 10 at 12:15pm  
This attempt took 7 minutes.

Question 1	1 / 1 pts

Five glucose molecules are completely consumed by an animal cell in the aerobic respiration pathway. How many total carbon dioxide molecules will be expelled by the cell?

☐ 5

☐ 6

☐ 25

☒ 30

Incorrect

### Question 2

0 / 1 pts

Assume 10 NADH molecules and 10 FADH<sub>2</sub> molecules enter the electron transport chain. How many ATP molecules will be synthesized?

☒ 40 ATP

☐ 50 ATP

☐ 20 ATP

☐ 10 ATP

Incorrect

### Question 3

0 / 1 pts

A kinase enzyme is most likely to catalyze which of the following chemical reactions?

☐ 1,3-Bisphosphoglycerate is dephosphorylated to form pyruvate



Fructose-1,6-Bisphosphate is split into two Glyceraldehyde-3-Phosphate molecules



Phosphate is added to glucose to form Glucose-6-Phosphate



Carbon Dioxide molecules are joined together

#### Question 4

1 / 1 pts

At which stages of aerobic respiration is carbon dioxide released by the cell?



Transition Reaction & Electron Transport Chain



Glycolysis & Electron Transport Chain



Transition Reaction & Citric Acid Cycle



Citric Acid Cycle & Glycolysis

#### Question 5

1 / 1 pts

In glycolysis, how many pyruvate molecules can be made from 5 glucose molecules?



5 pyruvate molecules



2 pyruvate molecules



1 pyruvate molecule



10 pyruvate molecules

### Question 6

1 / 1 pts

Under **anaerobic** conditions, what happens to the pyruvate molecules formed in glycolysis?

- ☒ Pyruvate is reduced to form lactate
- ☐ Pyruvate enters the transition reaction
- ☐ Pyruvate is oxidized to form lactate
- ☐ Pyruvate enters the Calvin Cycle

### Question 7

1 / 1 pts

At which stage of aerobic respiration is oxygen consumed?

- ☒ Electron Transport Chain
- ☐ Citric Acid Cycle
- ☐ Transition Reaction
- ☐ Glycolysis

### Question 8

1 / 1 pts

How many ATP molecules must be used to break down 2 glucose molecules in the energy consuming phase of glycolysis?

☒ 4

☐ 2

☐ 1

☐ 8

### Question 9

1 / 1 pts

The movement of which particles directly drives the activity of ATP Synthase?

☐ Electrons

☐ Glucose

☐ Photons

☒ Protons

### Question 10

1 / 1 pts

Under **aerobic** conditions, what happens to the pyruvate molecules formed in glycolysis?

☒ Pyruvate enters the transition reaction

☐ Pyruvate enter the Calvin Cycle

☐ Pyruvate is reduced to form lactate

☐ Pyruvate is oxidized to form lactate

Quiz Score: **8** out of 10