**EOC practice quiz 7**

1. **A diagram of a cell is shown below.**



**Proteins are synthesized in which numbered organelle?**

1. **1 c. 3**
2. **2 d. 4**
3. **Which best describes how enzymes function in the body?**
	1. **Enzymes are converted into products by the reactions they catalyze**
	2. **Enzymes lower the activation energy of reactions**
	3. **One enzyme can catalyze many different reactions**
	4. **An enzyme is used once and then destroyed by the cell**
4. **Generic drugs are copies that are the same as brand-name drugs in dosage, safety, strength, quality, and performance. Many people prefer generic drugs because they cost much less than their brand-name counterparts. Which best explains why pharmaceutical companies are able to sell generic drugs at a much lower cost than the brand-name drugs? (inquiry, technology, and engineering- connects to scientific method)**
	1. **Generic drugs do not have the initial costs of production and advertising**
	2. **Generic drugs do not have the approval of a government agency**
	3. **Generic drugs do not have to be tested on humans**
	4. **Generic drugs do not have to be packaged in childproof containers**
5. **A student performed an investigation of the relationship between heart rate and blood pressure. The data collected is shown in the table below.**

**The student concluded the resting heart rate affects the resting blood pressure. Which statement supports the student’s conclusion? (inquiry, technology, and engineering- connects to scientific method)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Subject** | **Age** | **Gender** | **Resting Heart Rate (beats/min)** | **Resting Blood Pressure (mmHg)** |
| **Q**  | **15** | **M**  | **70** | **115/80** |
| **R** | **32** | **M**  | **70** | **115/80** |
| **S** | **15** | **F**  | **76** | **115/80** |
| **T**  | **32** | **F**  | **76** | **152/98** |

* 1. **Subjects Q and S have the same resting blood pressure**
	2. **Subjects Q and R are different ages**
	3. **Subjects R and T have different resting blood pressure**
	4. **Subjects S and T are the same gender**

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1. **Two cells are shown in the diagram above.**

**Which statement correctly identifies the cells?**

* 1. **Cell 1 is prokaryotic; cell 2 is eukaryotic**
	2. **Cell 1 is eukaryotic; cell 2 is prokaryotic**
	3. **Both cells are prokaryotic**
	4. **Both cells are eukaryotic**
1. **An ecologist performed a study to determine how the rate of photosynthetic activity in a lake changed from month to month. The results of the study are shown in the graph below.**

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1. **Which conclusion is best supported by the evidence?**
2. **Photosynthetic organisms were dormant during the months of April through August**
3. **The rate of photosynthesis increased from June through December**
4. **The rate of photosynthesis was greatest during the months of May through July**
5. **Photosynthetic organisms experienced die-off during the months of January through June**

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1. **The graph represents the relationship between an organism’s oxygen consumption and body mass. Which statement is supported by the information shown in the graph?**
	1. **The oxygen consumption of an organism is one- half its body mass**
	2. **The oxygen consumption of an organism is not related to its body mass**
	3. **As the body mass of an organism increases, oxygen consumption decreases**
	4. **As the body mass of an organism decreases, oxygen consumption decreases**