**CHEM 121-Beginning of the Course Survey (SACS)**

Question 1

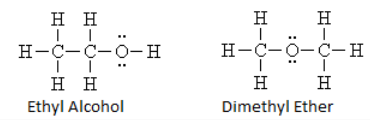
**Six steps are involved in applying scientific method to a problem. In the list below each step has been given number but steps are not in correct sequence.  
1. Gather experimental results: Petri-dishes with a mold growing at the same time stop the bacterial growth**  
**2. Draw a conclusion: Mold inhibits the bacterial growth  
3. Make a hypothesis: Substance secreted from the mold inhibits bacterial growth  
4. Compare experimental results with the hypothesis: Repeat experiments with mold growing beside bacterial colonies.   
5. Ask a question: What cause bacteria to stop growing in a petri-dish?  
6. Design and carry out an experiment: Grow bacteria in many petri-dishes.  
What is the correct sequence of steps?**

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. 1, 3, 6, 5, 4, 2 |  |
|  | b. 5, 3, 6, 1 4, 2 |  |
|  | c. 5, 6, 3, 1, 2 ,4 |  |
|  | d. 3, 5, 1, 6, 4, 2 |  |

Question 2

**How are the following compounds related?**



Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. These compounds are not related at all...they are totally different. |  |
|  | b. isotopes |  |
|  | c. isoelectronic species |  |
|  | d. constitutional isomers |  |

Question 3

**Which polymers occur naturally?**

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. starch and nylon |  |
|  | b. starch and cellulose |  |
|  | c. protein and nylon |  |
|  | d. DNA and plastic |  |

Question 4

**The products of the fermentation of sugar are ethanol and**

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. oxygen |  |
|  | b. sulfur dioxide |  |
|  | c. carbon dioxide |  |
|  | d. water |  |

Question 5

**The backbone of DNA is held together by?**

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. Glycosidic linkages |  |
|  | b. Disulfide linkages |  |
|  | c. Peptide linkages |  |
|  | d. Phosphodiester linkages |  |