

## Preview Assessment: Workshop 14 Part 1

Name Workshop 14 Part 1

### Instructions

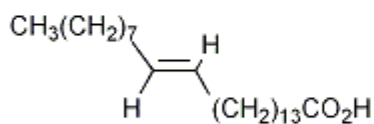
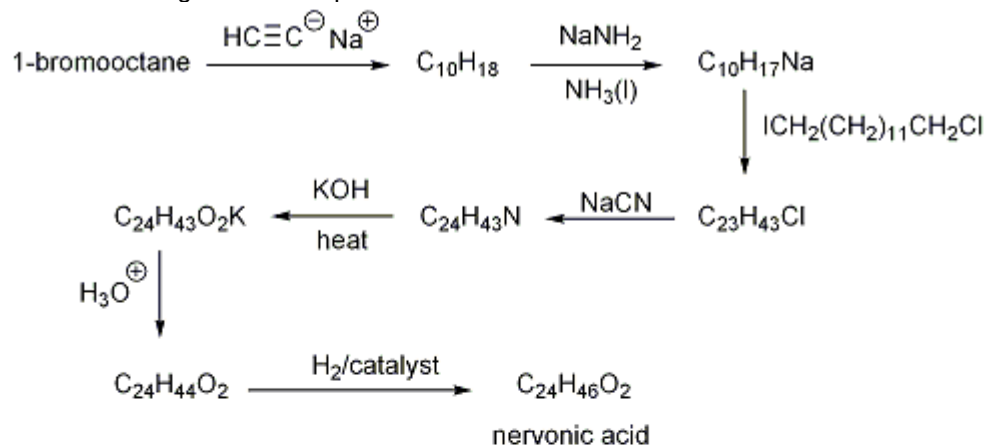
**Multiple Attempts** This Test allows multiple attempts.

**Force Completion** This Test can be saved and resumed later.

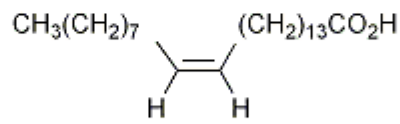
### Question Completion Status:

#### Question 1

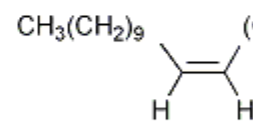
The product of the following reaction sequence is nervonic acid. What is the structure of nervonic acid



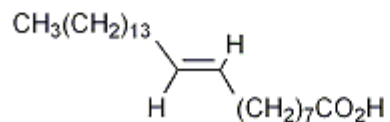
A



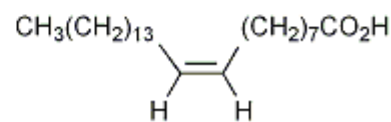
B



C



D



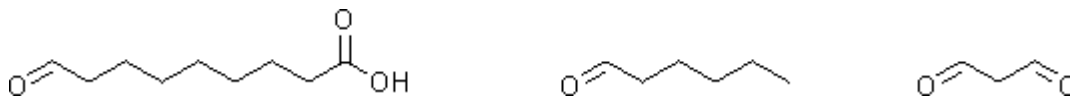
E

- A  
 B  
 C  
 D  
 E

## Question 2

1 points

The ozonolysis of a fatty acid produces the following fragments. What is the identity of the fatty acid? The structures of some common fatty acids can be found on page 1076 of the textbook.

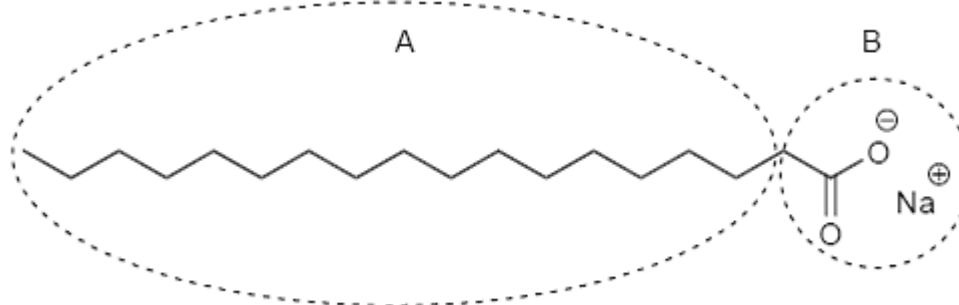


- Stearic acid
- Palmitoleic acid
- Oleic acid
- Linoleic acid
- Linolenic acid

## Question 3

1 points [Save](#)

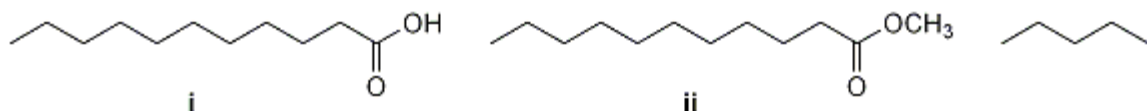
Choose the **incorrect** statement about the following sodium salt of steric acid.



- It has more solubility in water than the corresponding carboxylic acid.
- Region B is hydrophilic.
- Region A is hydrophobic.
- It can form micelles in water with the sodium carboxylate functionality being on the surface of the micelle.
- It would be predicted to form a lipid bilayer when dissolved in water.

## Question 4

Arrange the following compounds with respect to increasing solubility in water.

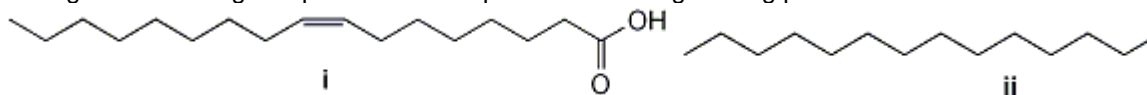


- i < ii < iii
- i < iii < ii
- ii < i < iii
- ii < iii < i
- iii < ii < i

iii < i < ii

### Question 5

Arrange the following compounds with respect to increasing melting point.



i < ii < iii

i < iii < ii

ii < i < iii

ii < iii < i

iii < ii < i

iii < i < ii

### Question 6

1 points [Save](#)

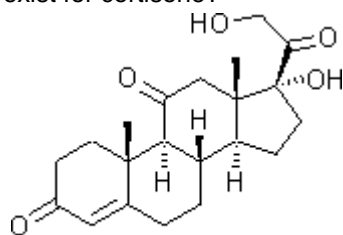
Which of the following statements regarding lipids is **not** true?

- Lipids are soluble in non-polar organic solvents.
- All lipids have the same functional groups.
- Lipids include waxes, steroids, and triacylglycerols.
- Lipids have little in common except their solubility.
- Many lipids have biological roles.

### Question 7

1 points [Save](#)

Cortisone, a kind of steroids, is also a member of lipids. How many stereoisomers can exist for cortisone?



**Cortisone**

4

8

16

32

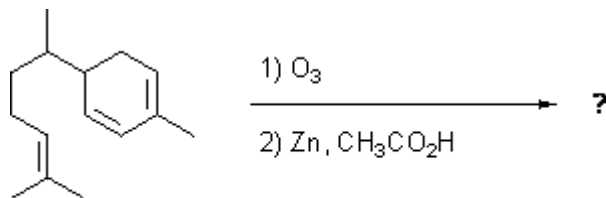
64

128

## Question 8

1 points [Save](#)

Draw the structure(s) of the product(s) of the ozonolysis of zingiberine, which can be found in the oil of ginger. (Note: If there is more than one product, draw all the structures in the same MarvinSketch window and then obtain the SMILES.)

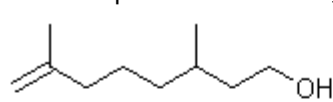


Zingiberine

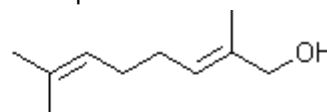
## Question 9

1 points [Save](#)

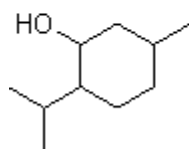
Which compound below does **not** obey the isoprene rule?



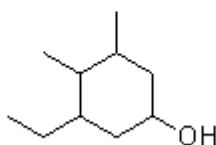
i



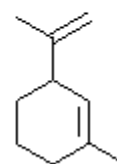
ii



iii



iv



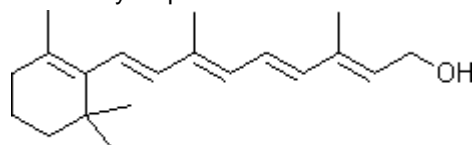
v

- i  
 ii  
 iii  
 iv  
 v

## Question 10

1 points [Save](#)

How many isoprene units are in vitamin A?



vitamin A

- 1  
 2

- 3
- 4
- More than 4.