

SLE155 Chemistry for the Professional Sciences

Burwood and Geelong



**DEAKIN
COLLEGE**

in association with



Practice Questions

Alcohols

Ethers

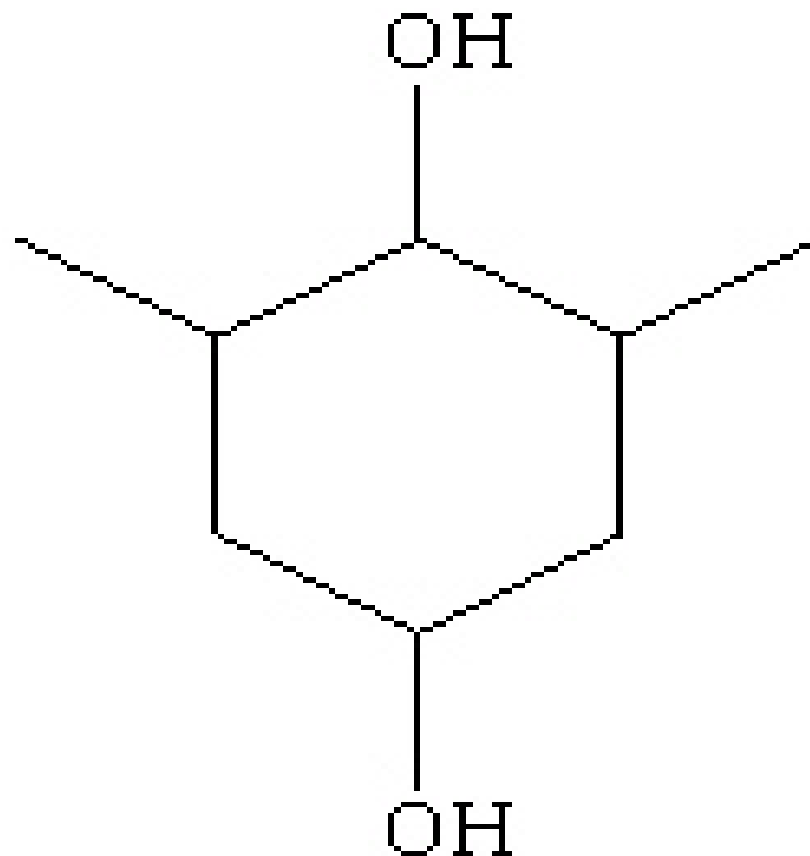
Nomenclature

Reactions

Q 1

The following compound is named 2,6-dimethylcyclohexane-1,4-diol.

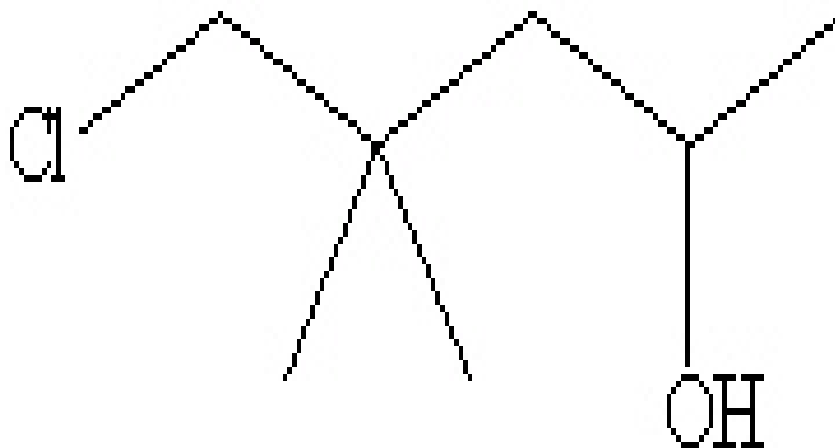
- a) True
- b) False



Q 2

The following compound is named 1-chloro-2,2-dimethylpentan-4-ol.

- a. True
- b. False



Q 3

The major product of the reaction of propan-1-ol with PCC is propanoic acid.

a. True

b. False

Q 4

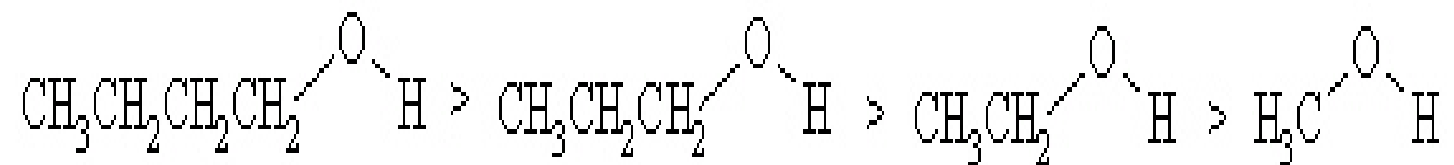
The following compounds are listed in decreasing boiling point order (highest first).



- a. True
- b. False

Q 5

The following compounds are listed in decreasing order of solubility in water (highest first).



- a. True
- b. False

Q 6

The product of the reaction of methanol with sodium metal is sodium methoxide.

a. True

b. False

Q 7

The major product of the reaction of 3-methylbutanol-2-ol with hot, concentrated sulfuric acid is 3-methylbut-1-ene.

a. True

b. False

Q 8

Alcohols have higher boiling points than alkanes of similar molecular mass.

a. True

b. False

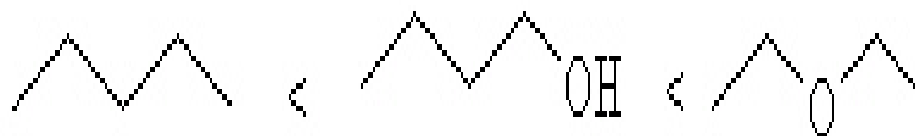
Q 9

Ethoxyethane is more commonly known as ether.

- a. True
- b. False

Q 10

The following compounds are listed in increasing order of solubility in water (lowest first).

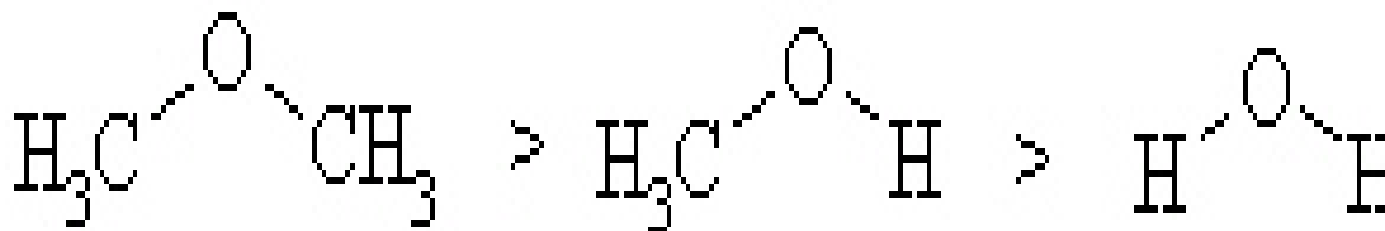


- a. True
- b. False

Q 11

The following compounds are listed in decreasing boiling point order (highest first).

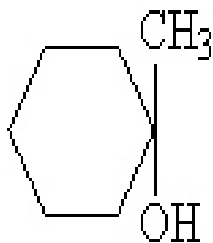
- a. True
- b. False



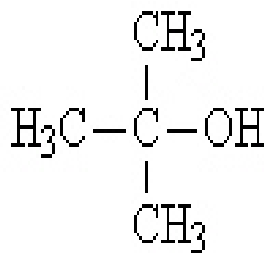
Q 12

Which are secondary alcohols?

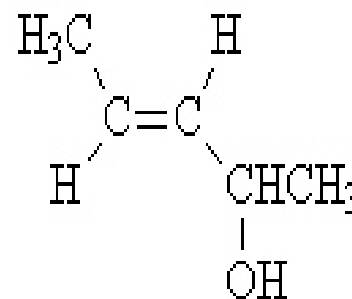
- a. I, III
- b. II, III
- c. III, IV
- d. I, IV



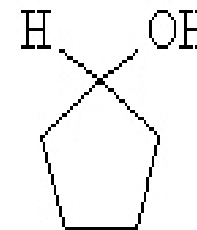
I



II



III

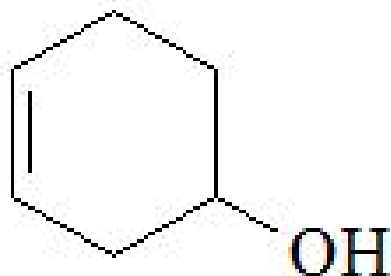


IV

Q 13

Which is the IUPAC name for the following structure?

- a. cyclohex-3-en-1-ol
- b. cyclohexenol
- c. cyclohex-1-en-4-ol
- d. cyclohexen-4-ol



Q 14

Arrange the compounds in the order of increasing solubility in water (lowest first).

- a. IV, III, II, I
- b. II, III, IV, I
- c. III, IV, II, I
- d. II, IV, III, I



I



II



III



IV

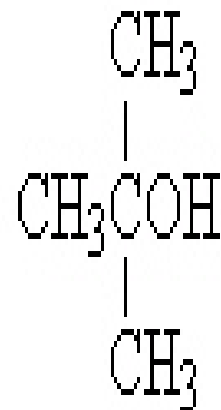
Q 15

Arrange the compounds in the order of increasing acidity
(least first).

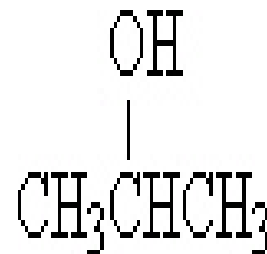
- a. III, I, II, IV
- b. II, III, I, IV
- c. I, III, IV, II
- d. II, I, III, IV



I



II



III

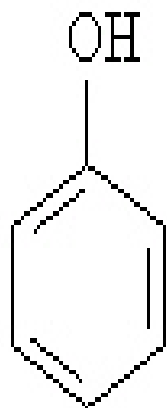


IV

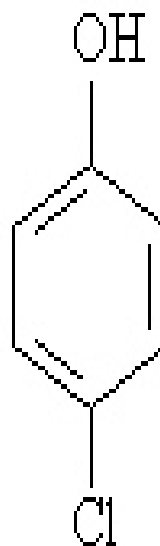
Q 16

Arrange the compounds in order of increasing acidity (least first).

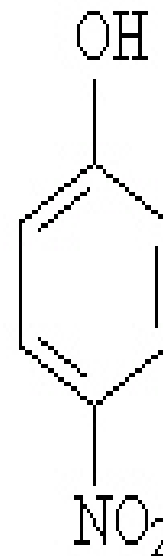
- a. I, II, III, IV
- b. III, II, IV, I
- c. II, III, IV, I
- d. I, IV, III, II



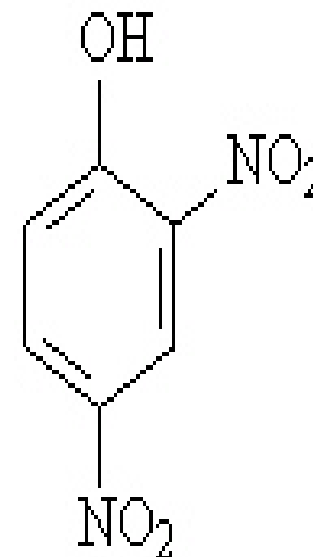
I



II



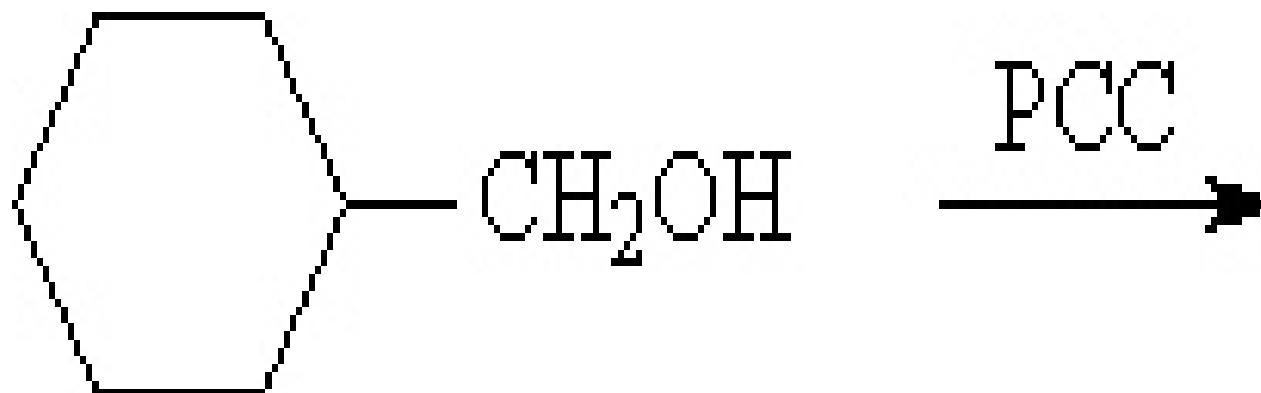
III



IV

Q 17

Which is the product of the following reaction?



Q 18

How can phenol be distinguished from cyclohexanol?

- a. solubility in sodium hydroxide solution
- b. solubility in hydrochloric acid solution
- c. solubility in sodium bicarbonate solution
- d. solubility in water

Q 19

Arrange the compounds in the order of increasing solubility in water (least first).

- a. I, III, II, IV
- b. I, IV, II, III
- c. III, I, IV, II
- d. IV, I, III, II



I



II



III



IV

Q 20

Arrange the compounds in the order of decreasing boiling point (highest first).

- a. I, III, II, IV
- b. IV, I, III, II
- c. I, IV, II, III
- d. III, IV, I, II



I



II



III



IV