

# SLE155 Chemistry for the Professional Sciences

## Burwood and Geelong



**DEAKIN  
COLLEGE**

in association with



# Practice Questions

**Alcohols**

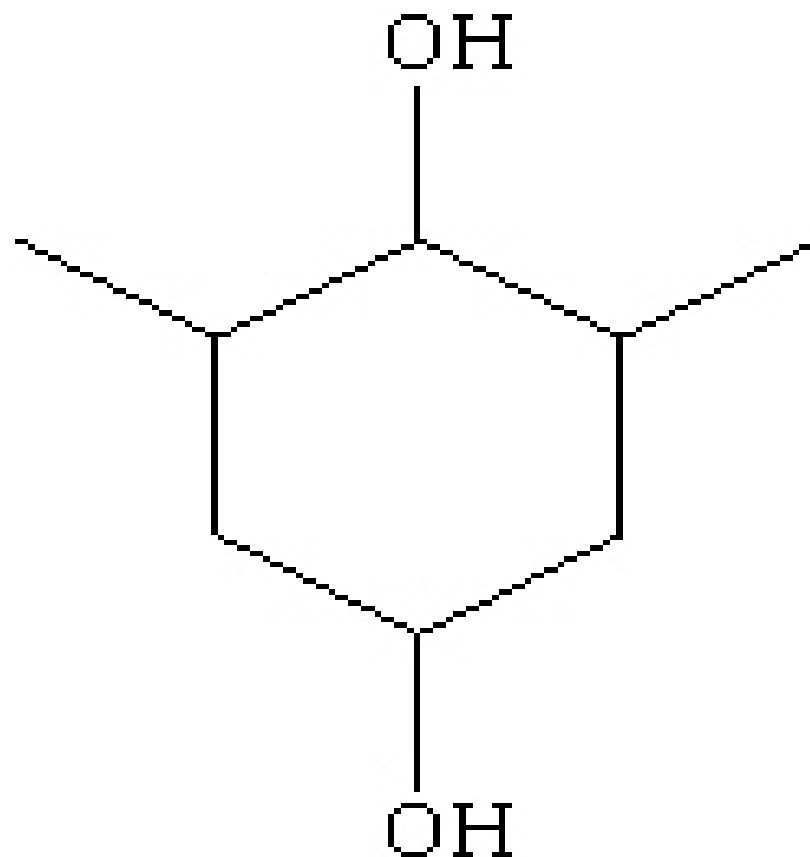
**Ethers**

**Nomenclature**

**Reactions**

# Q 1

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

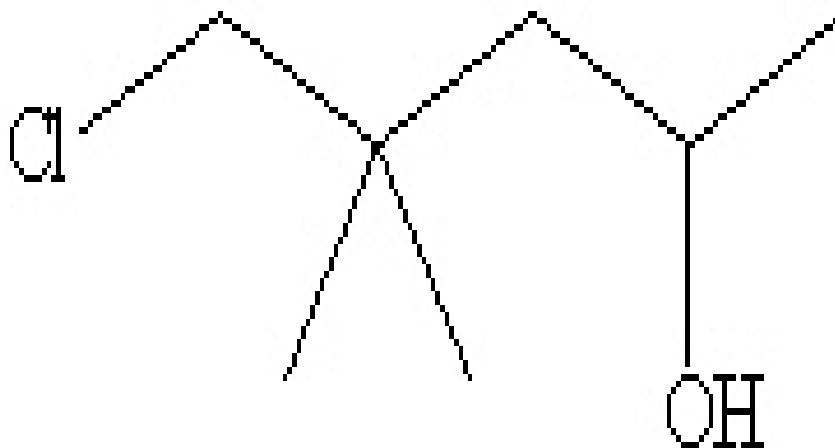


# Q 2

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).**

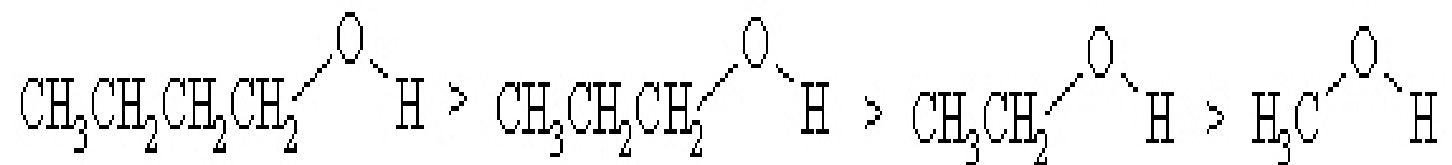


**a. True**

**\*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

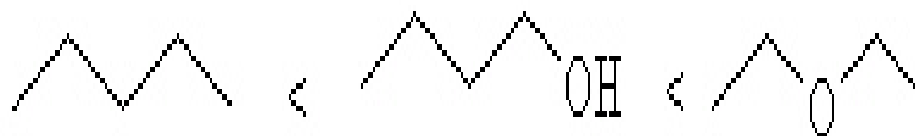
**Ethoxyethane is more commonly known as ether.**

\*a. True

b. False

# Q 10

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



a. True

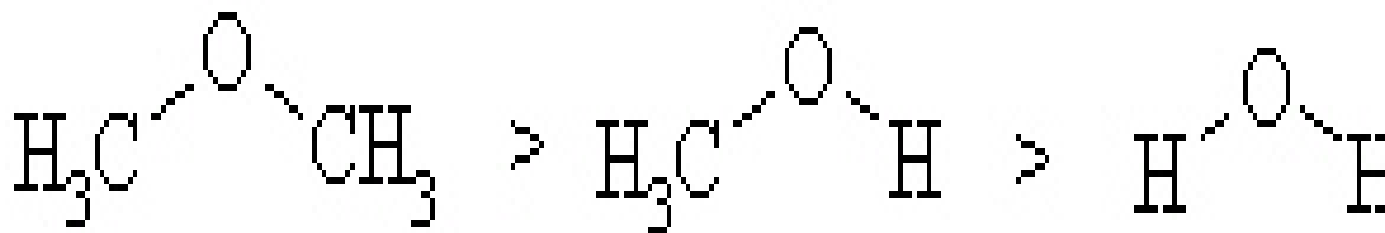
\*b. False

# Q 11

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

a. True

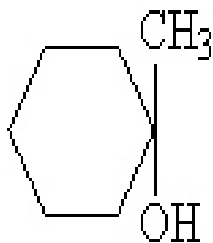
\*b. False



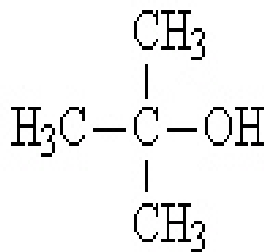
# Q 12

Which are secondary alcohols?

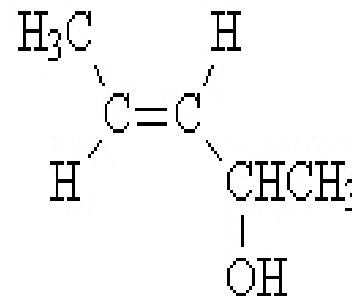
- a. I, III
- b. II, III
- \*c. III, IV
- d. I, IV



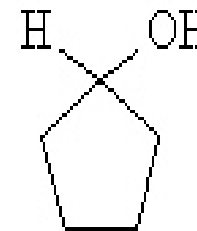
I



II



III



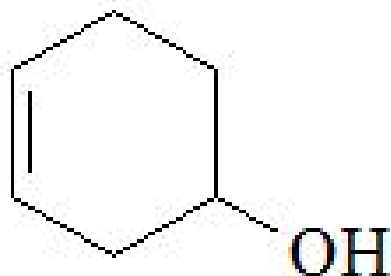
IV

Answer: c

# 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

Answer: b



I



II



III

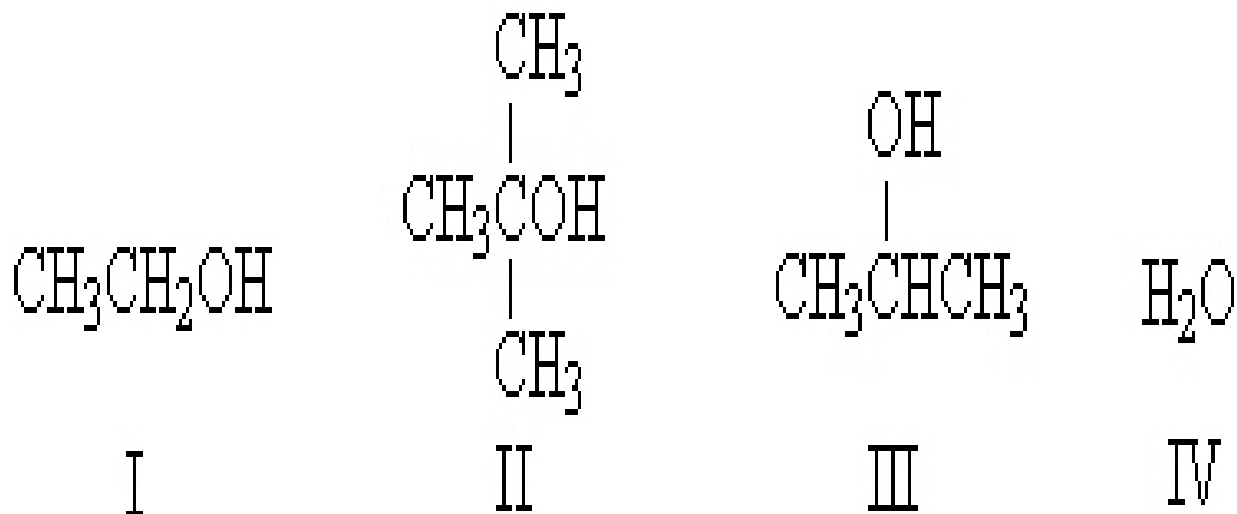


IV



# Q 15

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

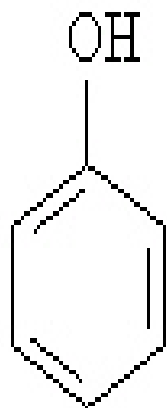


- a. III, I, II, IV
- \*b. II, III, I, IV
- c. I, III, IV, II
- d. II, I, III, IV

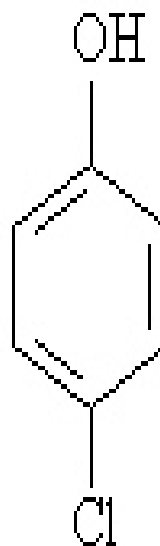
# Q 16

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

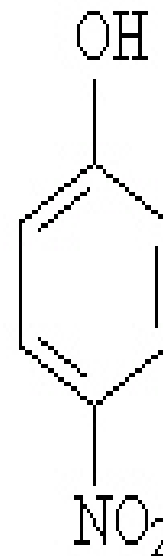
- a. I, II, III, IV
- b. III, II, IV, I
- c. II, III, IV, I
- \*d. I, IV, III, II



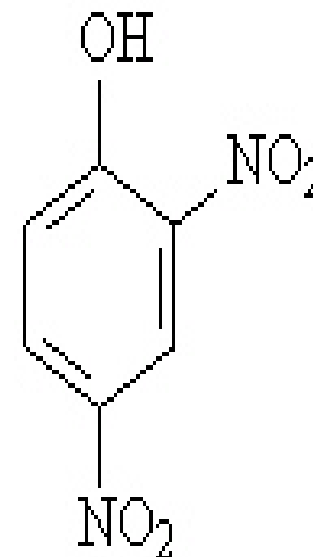
I



II



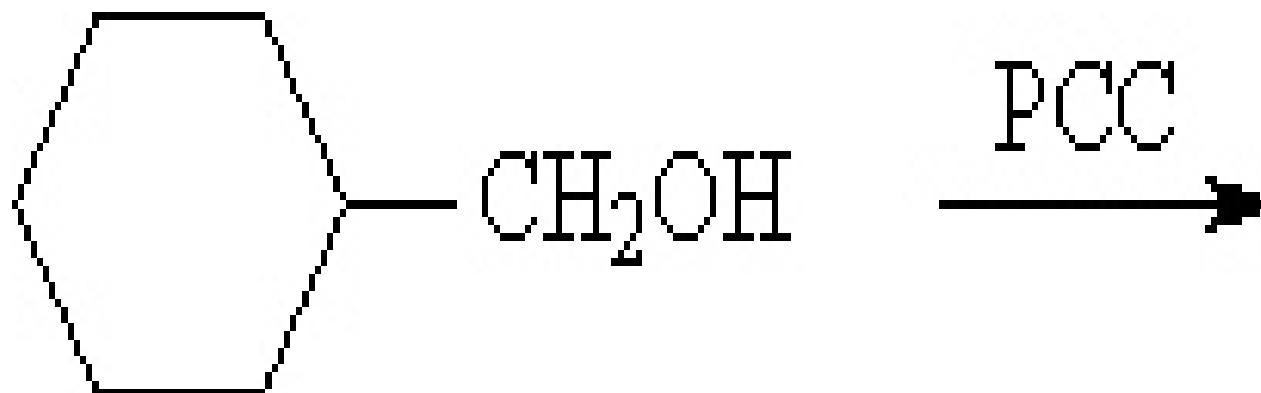
III



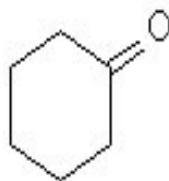
IV

## Q 17

Which is the product of the following reaction?



*Answer*



# 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