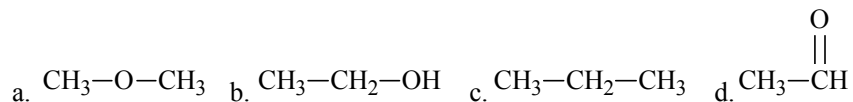


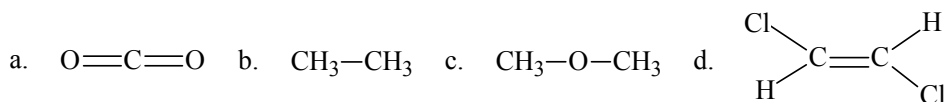
**Organic Chemistry I**  
**Problem Set 2 Answer Key**  
**Organic Compounds and Physical Properties**

1. Which of these has the highest boiling point? **b.**

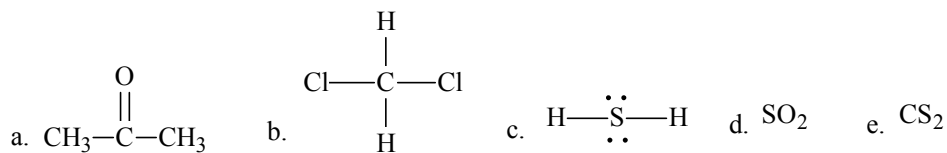


2. Which of the above has the lowest boiling point? **c.**

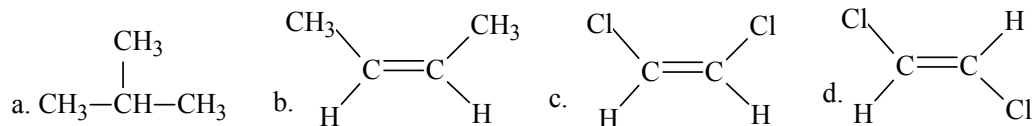
3. Which of these has the greatest dipole moment? **c.**



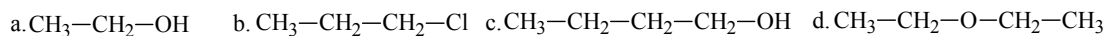
4. Pick the compound that is not polar. **e.**



5. Which of these boils at the highest temperature? **c.**

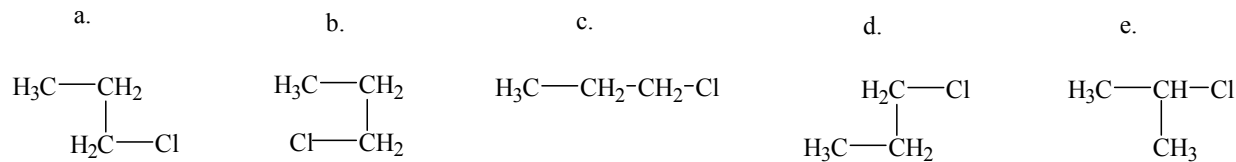


6. Which of the following is most soluble in water? **a.**



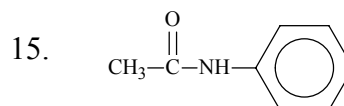
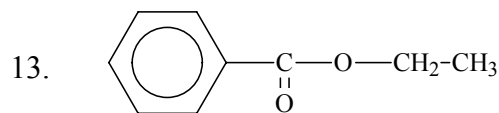
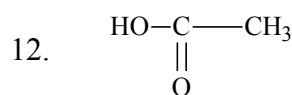
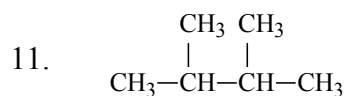
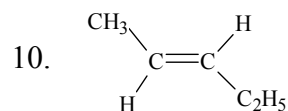
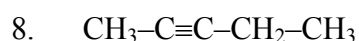
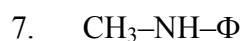
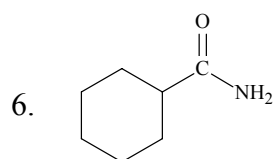
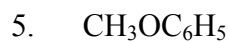
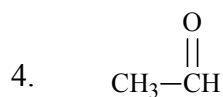
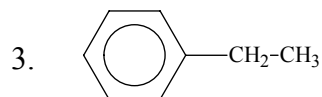
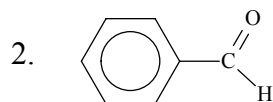
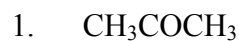
7. Which of the above is least soluble in water? **b.**

8. Which is isopropyl bromide? **e.**



Classify each of the following as:

- a. alkane 11,16
- b. alkene 10,17
- c. alkyne 8
- d. aromatic hydrocarbon 3,14,18,23
- e. alkyl halide 9,19
- f. alcohol 20,21,22
- g. ether 5
- h. amine 7
- i. ketone 1
- j. aldehyde 2,4,24
- k. carboxylic acid 12
- l. ester 13
- m. amide 6,15



Write a family name

16. cycloalkane

17. cycloalkene

18. arene

Name These

19. ethyl iodide (iodoethane)

20. methyl alcohol (methanol)

21. isopropyl alcohol (2-propanol)

22. Phenol

23. isopropylbenzene (cumene)

24. formaldehyde (methanal)