Cholesterol Lab Report

NAME:_____

PARTNER'S NAME:_____

LAB SECTION:_____

DATE:_____

% SCORE:

Laboratory Techniques: Extraction of cholesterol

	Points possible	
A. Lab Data		
B: Spectra		
C: Questions		
D: Discussion		
Prelab quiz		
Total		

B. SPECTRUM

Staple your IR Spectra of Cholesterol: For full credit here turn in your spectrum labeled with the sample name, your name and the O-H, C-O, sp3 C-H and C=C stretches. Note: The C=C in cholesterol is not always strong enough to see but try and locate it.

C. QUESTIONS

1. The Molecular Formula of Cholesterol is: ______.

- 2. The weight % composition for each atom is: _____%C ____% H ____% O
- 3. What functional groups are present in cholesterol? Bilirubin?

Cholesterol

Bilirubin

- 4. How do you know a reaction occurred when you added Bromine to the cholesterol?
- 5. Bromination of cholesterol leads to the dibromide structure labeled A (5α , 6β -dibromopcholestan- 3β -ol) below. Why is there an energy difference between the two products? Can you explain why only product A is obtained?



D. DISCUSSION

Was your extraction successful? What does your melting point indicate about your cholesterol purity? Discuss which intermolecular forces influence cholesterol's solubility in the extraction solvent, 2- butanone, and insolubility in water.