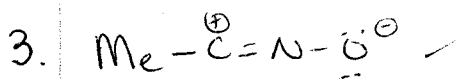
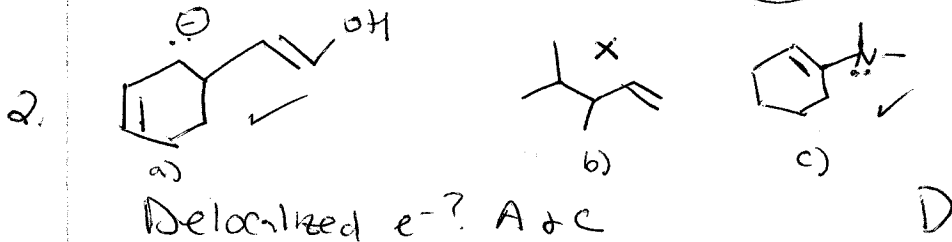
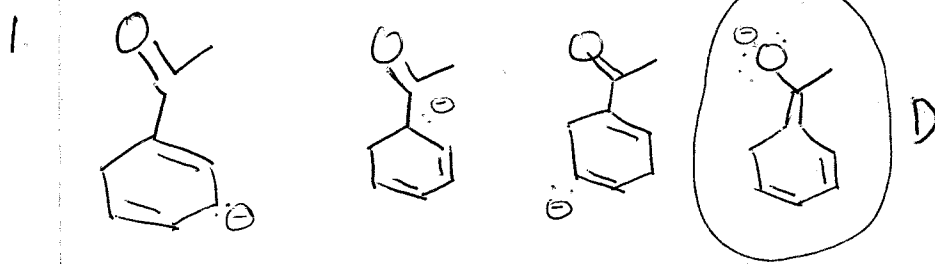
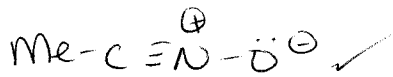
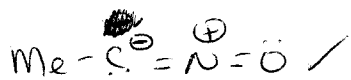
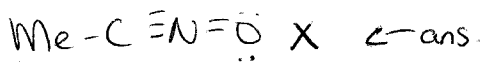


Test 3: Collonna / Fall 07

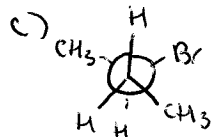
most stable?



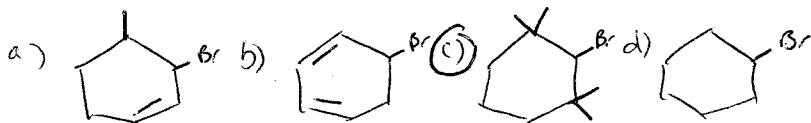
NOT resonance contributors?

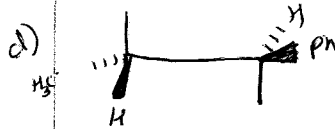
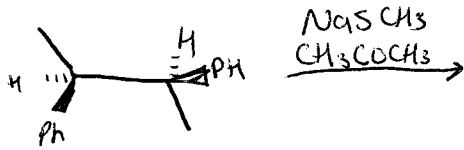


4. dehydrohalogenation of 2-bromobutane ⇒ trans-2-butene

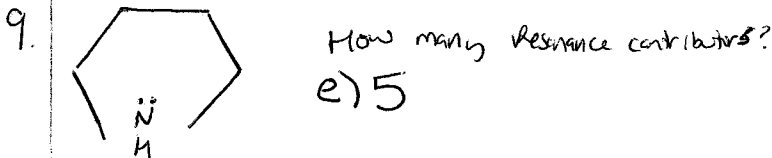
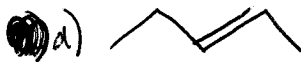
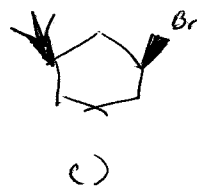
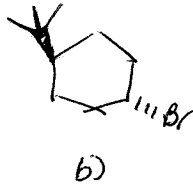
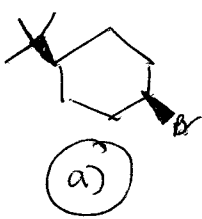


5. ether product when reacted with NaOMe?





7. Fastest rate of formation of tert-butylcyclohexane when treated w/ KOt



10. Benzene undergoes hydrogenation on catalyst, the energy that is released (heat of hydrogenation) is:

a) less than for hexatriene

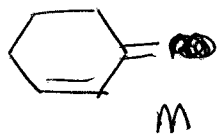
11. Rank in decreasing order - taken out

~~order~~

12. 1,2 or 1,4 Addition of HCl → single product

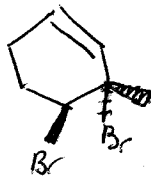
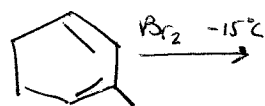
- a) Butadiene
- b) 2-methylbutadiene
- c) 1,3 Cyclohexadiene
- d) 2,3 Dimethylbutadiene

13. Kinetic product at low temp in addition of HCl to methylenecyclohexene M?

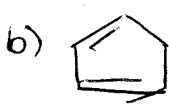
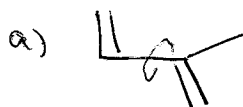


- a) 3-chloro-3-methylcyclohexane
- b) 3-chloro-1-methylcyclohexane
- c) 2-chloromethylcyclohexane

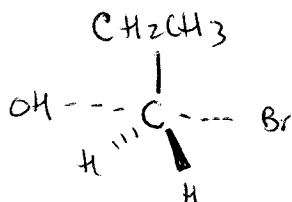
14. Major product?



15. Not diels-Alder rxn?



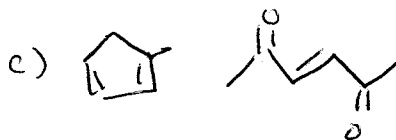
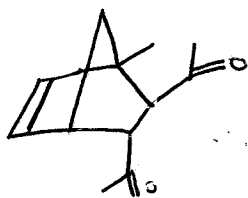
16.



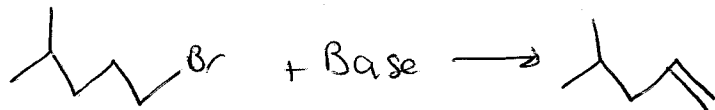
transition state:

B) rxn of 1-bromopropane w/ OH⁻

17.



18.



E2 product?

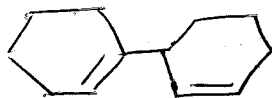
c) $\text{NaOC}(\text{CH}_3)_3$

19.

energy diagram for t -butyl iodide + MeOH to produce methyl t -butyl ether?

20.

Diels Alder?

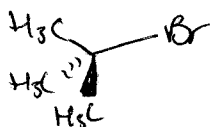


c)

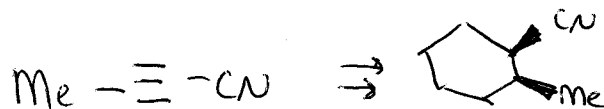
22.



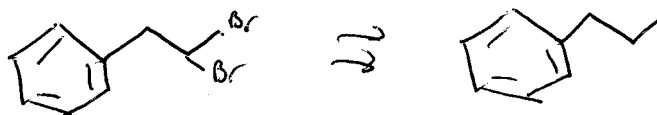
which substrate?



24.

b) H_2 Lindlar, Δ , H_2 Pd/C

23.



B) 3NaNH_3 , mineral oil, heat
 MeBr, DMF
 H_2/Pd