JEE: Mock test

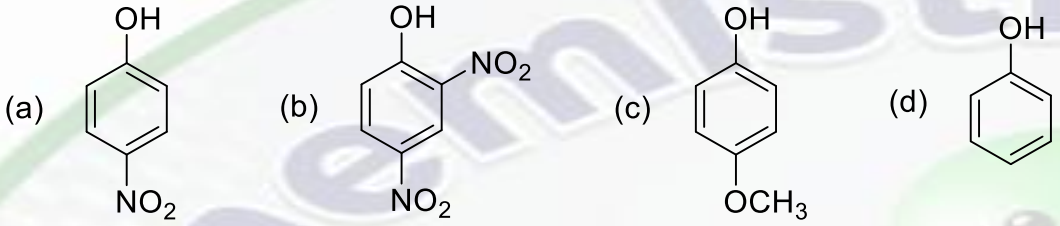
Part-3

Organic Chemistry

Chemistry Affinity

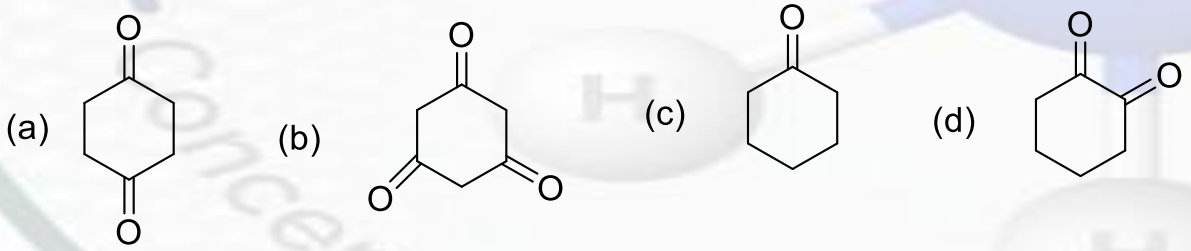
Conceptual, Real world, Happy Learning

1. Correct order of acidic strength of following compound is:



(1) c>d> a >b (2) b > a >c>d (3) b> a >d>c (4) c> b>a>d

2. Which has maximum enol %

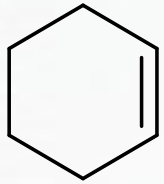


(1) a, (2) b, (3) c, (4) d

3. Number of polar solvents in

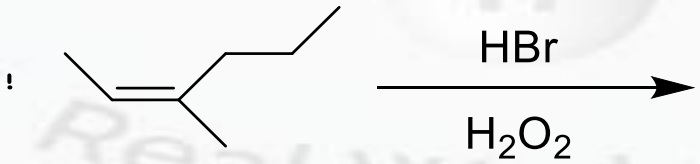
(a) $CH_2=CH_2$, (b) CCl_4, (c) $CHCl_3$, (d) CO_2

4. Correct statement of the below compound is

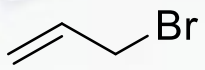


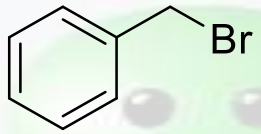
(1) Aromatic (3) Non benzenoid aromatic (2) Benzenoid aromatic (4) Alicylic

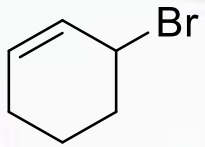
5. Count the number of stereoisomers form in the below reaction

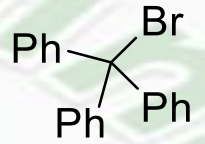


6. Which among the following halides will generate the most stable carbocation?

(1) 

(2) 

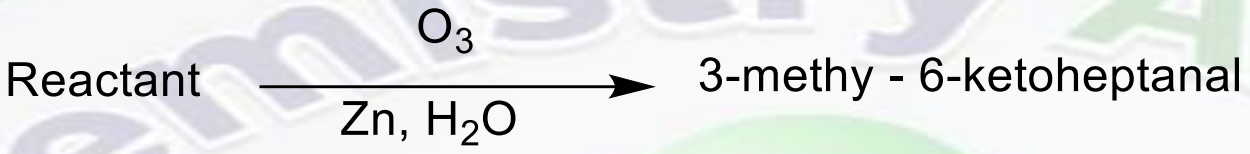
(3) 

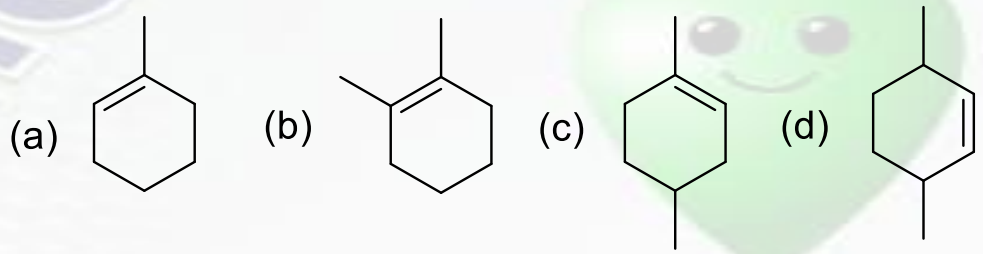
(4) 

7. Total number of sigma _____and pi_____ bonds respectively present in hex-1-en-4-yne are:

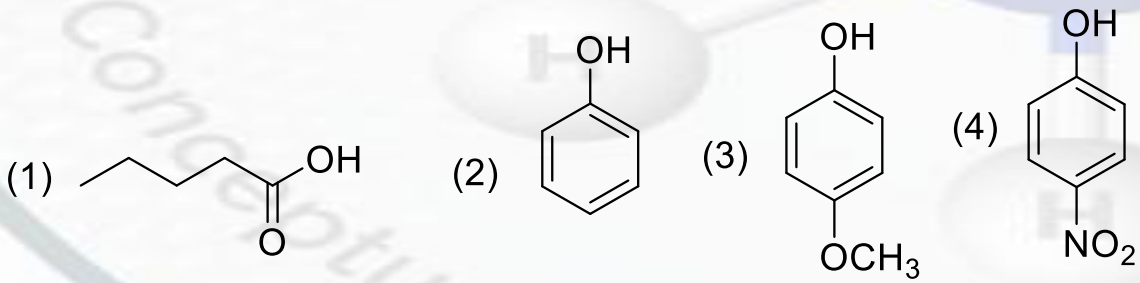
(1) 13 and 3 (2) 11 and 3, (3) 3 and 13, (4) 14 and 3

8. Identify the reactant of following reaction





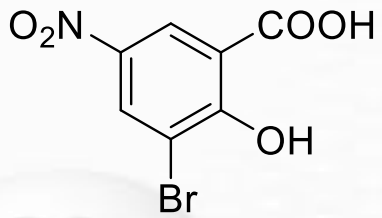
9. Which one is most acidic



10. IUPAC name of the given compound

(1) 3-Ethyl-1,1-dimethylcyclohexane (3) 1-Ethyl-3-methylcyclohexane (2) 1-Ethyl-3, 3-dimethylcyclohexane (4) 1,1-Dimethyl-3-Ethylcyclohexane

11. What is the correct IUPAC nomenclature



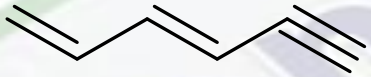
(1) 2-hydroxy-5-bromo-3-nitro benzenecarboxylic acid

(2) 3- bromo-2-hydroxy5-nitro benzenecarboxylic acid

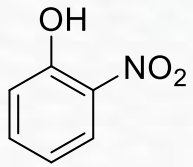
(3) 2-bromo-3-hydroxy-5-nitro benzenecarboxylic acid

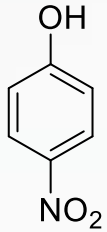
(4) 5-hydroxy-2-bromo-3-nitro benzenecarboxylic acid

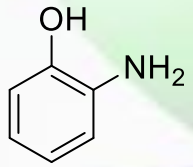
12. Calculate the total number of sigma and pi bonds in the given molecule,

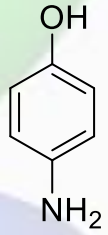


13. Among the following which are steam volatile

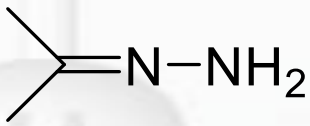
(1) 

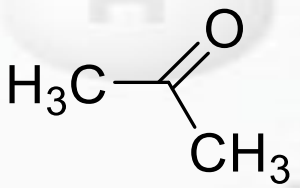
(2) 

(3) 

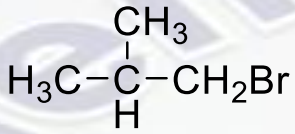
(4) 

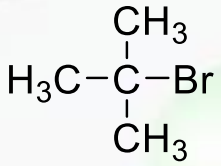
14. How many compound is/are nucleophile

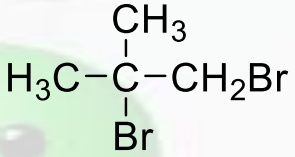
NH_3, H_3O^+, CH_3-S-CH_3, CH_2=CH_2, 

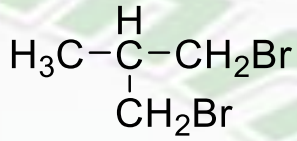


15. Excess of isobutane on reaction with Br_2 in presence of light at 125 °C gives which one of the as a major product?

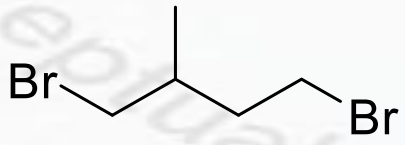
(1) 

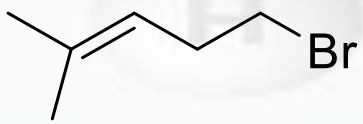
(2) 

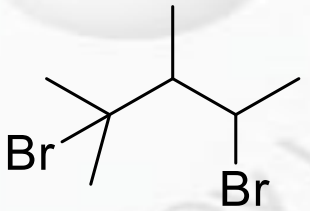
(3) 

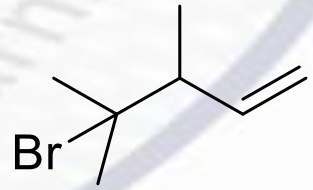
(4) 

16. The major product formed in the following reaction is

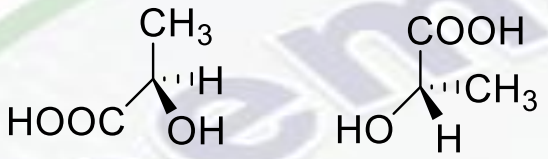
(1) 

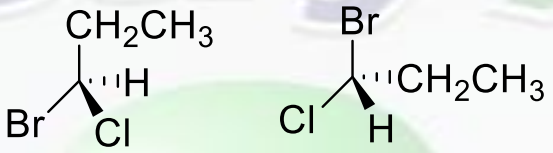
(2) 

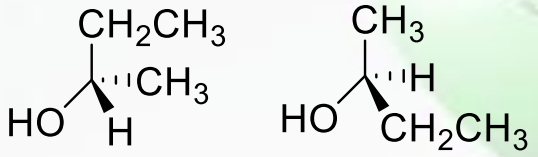
(3) 

(4) 

17. Which pair of structure are enantiomers?

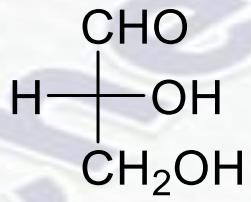
(I) 

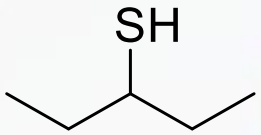
(II) 

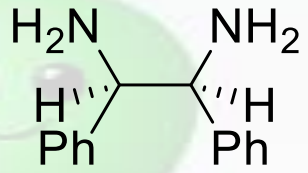
(III) 

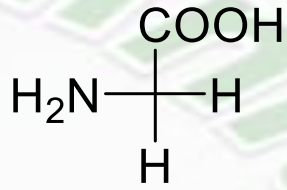
(1) I, II, (2) I, III, (3) II, III, (4) I, II, III

18. Which one of the following molecules is expected to rotate the plane polarized light?

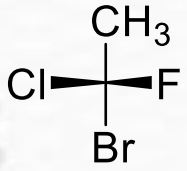
(1) 

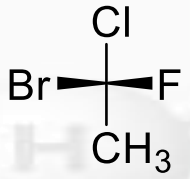
(2) 

(3) 

(4) 

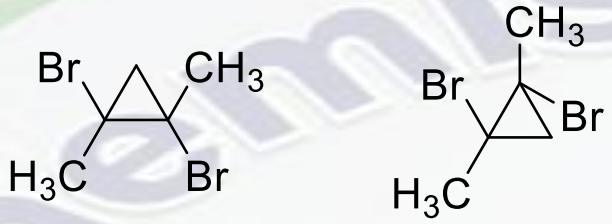
19. The compounds below are

(1) 

(2) 

(1) constitutional isomer, (2) enantiomers, (3) diastereomers, (4) identical

20. The compounds whose structure are shown below would have



(1) the same melting point, (2) different melting point, (3) equal but opposite optical rotation, (4) More than one of the above options

21. Which compound would show optical activity?

(a) cis-1,4-Dimethylcyclohexane, (b) trans-1, 4-Dimethylcyclohexane, (c) Cis-1, 4-Dimethylcycloheptane, (d) trans-1, 4-Dimethylcycloheptane

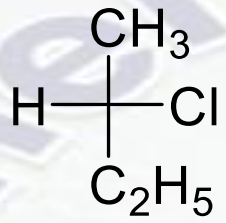
22. How many stereoisomers are possible $CH_3CH=CHCH_2CHBrCH_3$

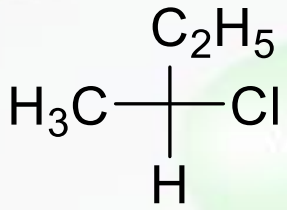
(a) 2, (b) 4, (c) 6, (d) 8

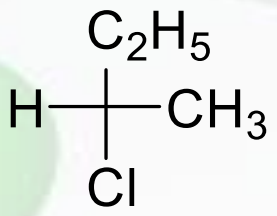
23. An organic compound is found to have the formula $C_5H_{10}ONCl$. The percentage of nitrogen present in the compound is (a) 21.36%, (b) 10.30%, (c) 10.3%, (d) 20.6%

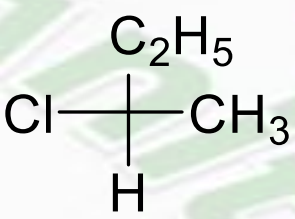
24. The principle involved in paper chromatography is (a) adsorption, (b) partition, (c) solubility, (d) volatility

25. CH_3-CHCl-CH_2-CH_3 has a chiral center. Which one of the following represents R configuration

(a) 

(b) 

(c) 

(d) 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