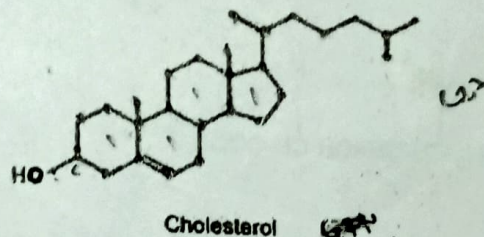


1. What is meant by catenation? Why are organic compounds more in number than inorganic compounds?
2. Define organic chemistry and state the difference between organic and inorganic compounds.
3. How are organic compounds classified? Give examples.
4. What are homocyclic and heterocyclic compounds? Give one example of each.
5. What is meant by functional group? Name five functional groups that contain oxygen atoms.
6. Write down the structural, condensed and bond line formula of following organic molecules;
- a. Ethanol      b. ethanal      c. butanoic acid      d. pentene
7. What is cracking? A fuel has octane number 80, what does it mean?
8. What is homologous series? Write its characteristics.
9. Write the homologous series of carboxylic acid and amine.
10. Write short notes on
- a. Catenation property      c. octane number
- b. Tetravalency of carbon      d. aromatization
11. Cholesterol is an organic compound. It is an essential structural component of all animal cell membranes. However, if its level in the blood is high, it may lead to the risk of heart attack.

- a. What are the functional groups in cholesterol?
- b. Give the molecular formula of cholesterol.
- c. Is this alicyclic or aromatic compound? Explain.

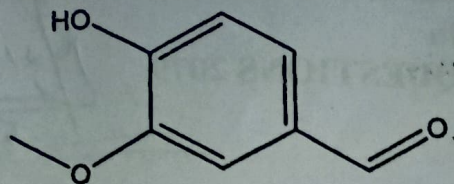


12. Draw the chemical structure of the following compounds;

- a. But-2-ene      f. methanal
- b. 4-methylpentanal      g. hexan-3-one
- c. Hex-4-enal      h. propanenitrile
- d. 2-Ethylbut-3-enal      i. Ethyl 2-methylbutanoate
- e. 2-ethyl-4-methoxypentanal      j. pent-4-enoic acid

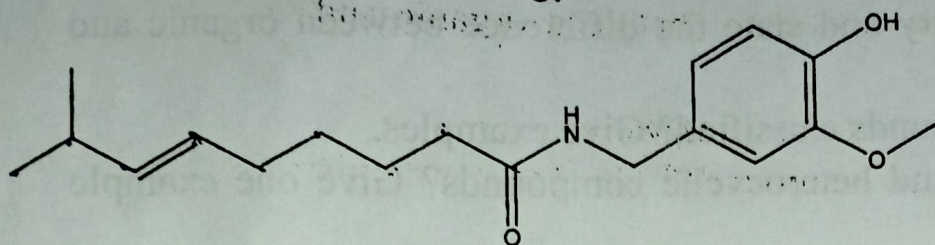


13. Write the functional group present in the following compound;



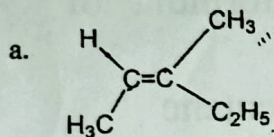
vanilline

b.

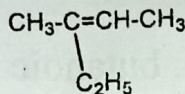


capsaicin

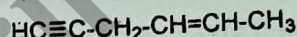
14. Write the IUPAC name of following organic compounds;



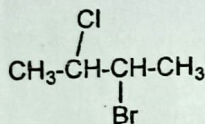
b.



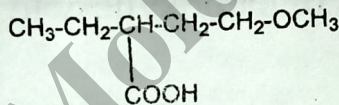
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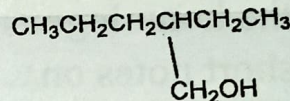
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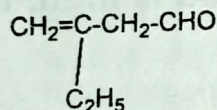
e.



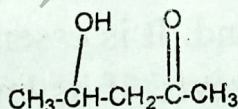
f.



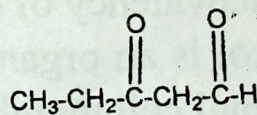
g.



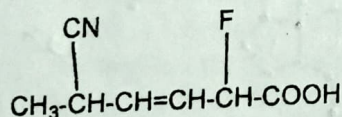
h.



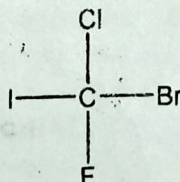
i.



j.



k.



l.

