



## MORE QUESTIONS SOLVED

### I. Very Short Answer Type Questions

Question 1. How will you separate a mixture of two organic compounds which have different solubilities in the same solvent?

Answer: By fractional crystallisation.

Question 2. An organic liquid decomposes below its boiling point. How will you purify it?

Answer: By distillation under reduced pressure.

Question 3. Suggest a suitable technique for separating naphthalene from kerosene oil present in a mixture.

Answer: Simple distillation.

Question 4. Arrange the following in increasing order of C—C bond length:  $C_2H$  &  $C_2H_4$ ,  $C_2H_2$ .

Answer:  $C_2H_2$  (120 pm) <  $C_2H_4$  (134 pm) <  $C_2H_6$  (154 pm)

Question 5. Name the process used to separate sugar and salt.

Answer: Fractional crystallisation using ethanol as a solvent.

Question 6. Which gas is liberated in Kjeldhal's method?

Answer: Ammonia gas ( $NH_3$ )

Question 7. What is Lassaigne's extract?

Answer: When organic compound is fused with sodium metal and then extracted by water, it is called Lassaigne's extract.

Question 8. What type of solids are separated by fractional crystallisation?

Answer: Those solids which are soluble in the same solvent but to a different extent i.e., differ in their solubility.

Question 9. Name a suitable adsorbent used in the process of column chromatography.

Answer:  $Al_2O_3$  (alumina)

Question 10. Name three types of chromatography.

Answer: Column chromatography, paper chromatography and thin layer chromatography.

Question 11. Which method is used to extract a compound in aqueous solution?

Answer: Differential extraction.

Question 12. In Carius method, sulphur is estimated by precipitating it as which compound?

Answer:  $BaSO_4$ .

Question 13. Which elements are estimated by Liebig's Method?

Answer: Carbon and hydrogen.

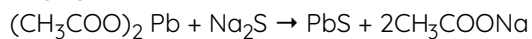
Question 14. Which type of compounds are purified by steam distillation?

Answer: Steam volatile and insoluble in water.

Question 15. Complete the following:



Answer:



Question 16. How will you separate a mixture of Iodine and sodium chloride!

Answer: Sublimation.

Question 17. Why is an organic compound fused with sodium in Lassaigne's test?

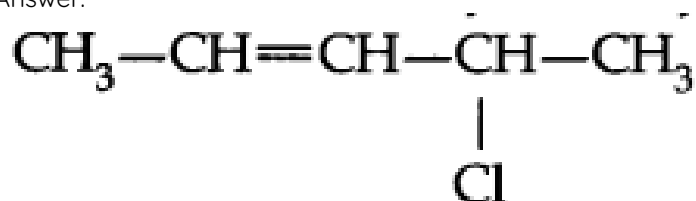
Answer: It is because sodium is highly reactive and it reacts with elements to form ionic compounds.

Question 18. Write the name of element which is confirmed on adding  $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}]$  in sodium extract solution due to appearance of violet colouration.

Answer: Sulphur.

Question 19. Write the structural formula of 4-chloro-2-pentene.

Answer:



Question 20. What is the basic principle of chromatography?

Answer: Chromatography is based on the principle of differential adsorption.

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