CHEMISTRY STUDY MATERIALS FOR CLASS 10

(NCERT Based: MCQ with Answers)

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CARBON AND ITS COMPOUNDS

- 1. Which of the following statements are correct for carbon compounds?
 - (i) Most carbon compounds are good conductors of electricity.
 - (ii) Most carbon compounds are poor conductors of electricity.
 - (iii) Force of attraction between molecules of carbon compounds is not very strong.
 - (iv) Force of attraction between molecules of carbon compounds is very strong.
 - (a) (ii) and (iv) (B) (II) AND (III) (c) (i) and (iv) (d) (i) and (iii)
- 2. C_3H_8 belongs to the homologous series of
 - (a) Alkynes (b) Alkenes (c) ALKANES (d)

(d) Cyclo alkanes

3.

The IUPAC name of $CH_3 - CH_3 = CH_2 - CH_3$ is CH_3

(a) 2-ethyl-2-methyl propane
(b) 2, 2-DEMETHYL BUTANE
(c) 1,1,1-trimethyl propane
(d) 2, 2-methyl butane

4. Which of the following is the formula of Butanoic acid?

(a) $CH_3CH_2CH_2CH_2COOH$ (b) $COOH - CH_2 - CH_2 - CH_2 - CH_3$ (c) $CH_3 - CH - CH_2 - CH_3$ COOH (d) $CH_2 - CH_2 - CH_2 - COOH$

ANSWER: D

- 5. The number of isomers of pentane is
 - (a) 2 (B) 3 (c) 4 (d) 5

6. Which of the following will undergo addition reactions?						
(a) CH ₄	(b) C ₃ H ₈	(C) C ₂ H ₆	(D) C ₂	(D) C ₂ H ₄		
7. When ethanoic acid is treated with NaHCO [^] the gas evolved is						
(a) H ₂	(B) CO ₂	(c) CH ₄	(d) CC	(d) CO		
8. Ethanol on complete oxidation gives						
(a) acetic acio	(B) CO ₂ A	(B) CO ₂ AND WATER				
(c) ethanal		(d) acetone	(d) acetone/ethanone			
9. Which of the following will give a pleasant smell of ester when heated with ethanol						
and a small quantity of sulphuric acid?						
(A) CH₃COC	DH (b) CH_3CH_2C	OH (c) (CH₃OH	(d) CH₃CHO		
10. Name the functional group present in CH_3COCH_3 .						
(a) Alcohol	(b) Carboxylic	acid (c) K	ETONE	(d) Aldehyde		
11. Why does carbon form compounds mainly by covalent bonding?						
(a) There are four electrons in the outermost shell of carbon.						
(b) It requires large amount of energy to form C^{4+} or C4sup>4						
(c) It shares its valence electrons to complete its octet.						
(D) ALL THE ABOVE.						
12. Addition reactions are undergone by(a) saturated hydrocarbons (alkanes)(b) only alkenes						
		(b) only alkenes(d) only alkynes				
13. Identify 'A' in the following reaction: $CH_3COOH + Na_2CO_3 \rightarrow A + CO_2 + H_2O$						
	DNA (b) CH_2 (c)	-	_	(d) NaHCO ₂		
		. ,				
14. Which of the following belongs to homologous series of alkynes? C_6H_6 , C_2H_6 , C_2H_4 , C_3H_4 .						
·	(b) C ₂ H ₄ , C ₃ H	•	(D) C ₃	H₄		
15. A hydrocarbon has four carbon atoms. Give its molecular formula if it is an alkene.						
-	(B) C ₄ H ₈					
() 1 10			\ / - -	•		

K	$\frac{rO_3 \text{ in}}{_3\text{COOH}} A$ $\frac{ \text{kaline}}{\text{MnO}_4} B$				
(a) CH ₃ CHO, CH ₃ COOH Ethanal, Ethanoic acid					
(b) CH ₃ COOH, CH ₃ CHO Ethanoic acid Ethanal					
(c) CH_3CHO , $CO_2 + H_2O$ Ethanal					
(d) CH_3COOH , $CO_2 + H_2O$ Ethanoic acid					
Answer: A					
17. Give the IUPAC name of $CH_3COOC_2H_5$.					
(a) Ethyl ethanoic acid	(b) Butanoate				
(C) ETHYL ETHANOATE	(d) Ethyl methyl carboxylic acid				
18. The first member of the alkyne homologous series is					
(a) propyne (B) ETHYNE	(c) methane	(d) ethene			
19. In diamond, each carbon atom is bonded to four other carbon atoms to form					
(a) a hexagonal array (B) A RIGID THREE-DIMENSIONAL STRUCTU					
(c) a structure of a ring (d) a struc	ture in the shape of a fo	otball			
20. A soap molecule has a					
(a) hydrophobic head and hydrophobic tail					
(b) hydrophobic head and hydrophilic tail					
(a) have been been and have been been been been been been been be					

(c) hydrophilic head and hydrophilic tail

(D) HYDROPHILIC HEAD AND HYDROPHOBIC TAIL
