

**B.Sc. (Part – I) (Semester – I) (CBCS)**  
**Examination, October – 2020**  
**CHEMISTRY ( Paper –II)**  
**Sub. Code : 71605**

Total Marks: 50

Day and Date : Monday , 19/04/2021  
 Time: 12.30 To 1.30

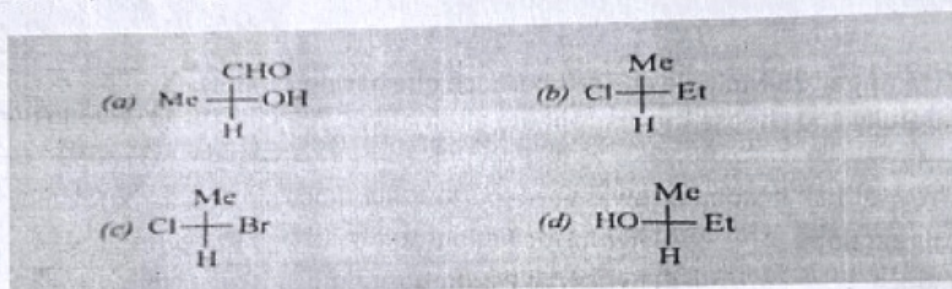
Seat No			Supervisor's Sign.	
PRN No.			Obtained Marks	
Students Sign.			Examiner's Sign	

Instructions: 1. Attempt all 25 Multiple choice que. Each que having 2 marks.  
 2. Read each que carefully and choose the appropriate alternatives: A,B,C,or D and write in the baskets.

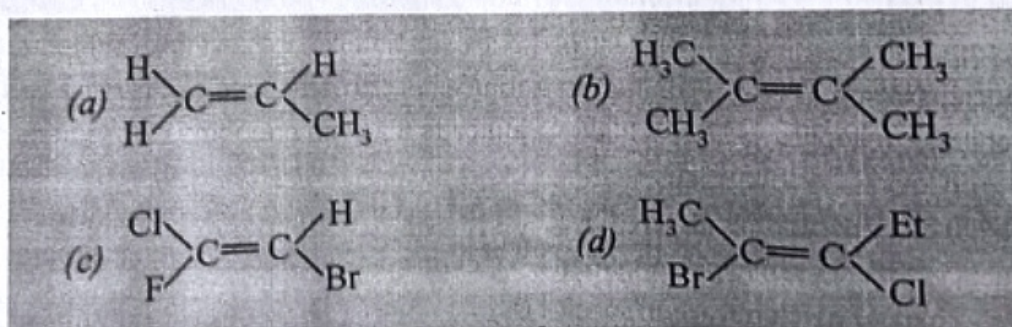
- 1) Fish hook arrow or half headed arrow is used to show..... ( )  
 a) Chemical reaction                      b) hemolytic fission  
 c) resonance                                  d) hetrolytic fission
- 2) Heterocyclic covalent bond fission yields..... ( )  
 a) pair of free radicals                      b) pair of cations  
 c) pair of anions                              d) one each of cation and anion
- 3) Nucleophiles are ..... ( )  
 a) electron loving                              b) electron hating  
 c) nucleus loving                              d) nucleus hating
- 4) Electrophile term implies .....species. ( )  
 a) Electron loving                      b) nucleus heating                      c) nucleus loving                      d) single electron
- 5) The stability of carbocation is affected by..... ( )  
 a) Inductive effect                      b) hyperconagation                      c) resonance effect                      d) all of these
- 6) Negatively charged trivalent carbon species is..... ( )  
 a) Carbanion                      b) carbocation                      c) free radicals                      d) caebene
- 7) Electromeric effect is.....effect. ( )  
 a) Parment                      b) temporary                      c) time variable                      d) both a & b
- 8) The complete transfer of  $\pi$  electron towards attacking agents is called.....effect. ( )  
 a) -E                      b) +I                      c) +E                      d) -I
- 9) An object which superimpose on its mirror image is called..... ( )  
 a) Achiral                      b) chiral                      c) cis                      d) trans
- 10) The stereoisomers of a compound which rotate the plane of polarized light are called as.....( )  
 a) Optical isomers                      b) geometrical                      c) conformational                      d) all of these
- 11) A chiral center is ..... Hybridized atom. ( )



- a)  $sp^3$       b)  $sp^2$       c)  $sp$       d)  $sp^d$  ( )
- 12) An optical active molecule lacks .....of symmetry.  
a) Centre      b) plane      c) alternating axes      d) all of these
- 13) Quite often in organic compounds presence of chiral carbon causes..... isomerism.( )  
a) Geometrical      b) conformational      c) optical      d) cis-trans
- 14) Optical inactivity of mesotartaric acid is due to the presence of symmetry. ( )  
a) Alternating axis of      b) centre of  
c) plane of      d) proper axis of
- 15) Non-super imposable mirror images of an optically active compound cannot be.... ( )  
a) Optical antipodes      b) Diastereomers      c) enantiomers      d) enantiomorphs
- 16) 2-butene exhibit..... isomerism. ( )  
a) Optical      b) geometric      c) conformational      d) none of these
- 17) Identify the compound having R absolute configuration from the following is ( )



- 18) Which of the following has Z-configuration. ( )



- 19) Correct structure for benzene was proposed by..... ( )  
a) Dewar      b) faraday      c) kekule      d) claus
- 20) Cyclopentadiene cation is ..... by nature. ( )  
a) Aromatic      b) antiaromatic      c) pseudoaromatic      d) non-aromatic
- 21) All aromatic compounds are..... ( )  
a) Planer      b) cyclic,conjugated      c) having  $(4n+2) \pi$  electron      d) all of these
- 22) In benzene C=C bond distance is..... ( )  
a)  $1.39 \text{ \AA}$       b)  $1.54 \text{ \AA}$       c)  $1.34 \text{ \AA}$       d)  $1.20 \text{ \AA}$



23) In benzene ..... type of overlapping is not observed.

( )

- a)  $sp^2-sp^2$    b)  $p-p$    c)  $sp^2-s$    d)  $sp-sp$

( )

24) Benzene undergoes electrophilic substitution because.....

- a) The ring structure acts as source of electrons  
b) It preserves aromatic sextet by substitution  
c) Positively charged carbocation is stabilized by resonance  
d) all of these

( )

25) Sulphonation of benzene occurs by ..... mechanism.

- a) Electrophilic   b) nucleophilic   c) free radical

d) any one of these