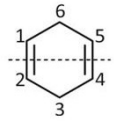
Level - 1	DTS-5

61.(BCD) $NaNH_2$ will remove acidic-H

62.(A) $C_2H_4O \equiv CH_3CHO$ $X : CH_3CH \equiv C(CH_3)(CH_2CH_3)$; $CH_3CH \equiv C(CH_3)CH_2CH_3$

63.(B) O_3 fails to break $-\underset{sp}{C}-\overset{\sigma}{-}\underset{sp}{C}-$ bond.

So the product of reductive ozonolysis : $Ph-C\equiv CH \xrightarrow[Zn-H_2O]{O_3} Ph-\underset{\underset{O}{\|}}{C}-CHO$

64.(C) $2H_2C(CHO)_2 \xleftarrow[Zn/H_2O]{O_3}$ 

65.(A)  Does not satisfy all conditions of aromaticity i.e. planarity, $(4n+2)\pi$ electrons and complete conjugation.

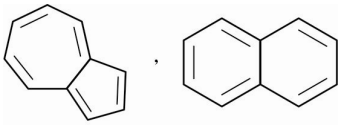
66.(B) Benzene actually has 6 carbon-carbon 'Partial double' bonds due to resonance.

67.(AB)  Satisfies all conditions of aromaticity.
Cyclic, Perfectly conjugated
Planar, (4n + 2)π-electrons.

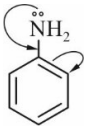
68.(B) Huckel's Rule : An aromatic compound must contain $(4n+2)\pi$ delocalized-electrons.

69.(A) Conjugated system ≡ Resonance ≡ More stable

70.(ABCD)


(Azzulene) (Napthalene)

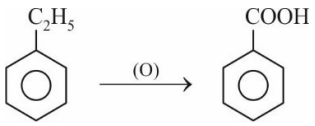
All are true statements regarding naphthalene
⇒ Non-benzenoid in nature

71.(A)  : NH_2 due to lone pair over N-atom, it is exerting +M effect (an activating group)

72.(B) $PhMg^{\delta-}Br + CH_3O^{\delta+}H \longrightarrow$  $+ Mg(Br)OCH_3$

73.(D) Benzene due to resonance stabilisation resist addition and oxidation reactions and in general is similar to saturated hydrocarbons (despite being an unsaturated compound).

74.(B) 

75.(C) 

* Alkyl group over benzene ring (except 3) is oxidised to $-COOH$ group.