Hydrocarbons

Q.No.1: The *trans*-alkenes are formed by the reduction of alkynes with :

JEE 2018

A. Na / liq. NH_3

B. Sn - HCl

C. H_2 - Pd / C, $BaSO_4$

D. $NaBH_4$

Q.No.2: The combustion of benzene (*l*) gives $CO_2(g)$ and $H_2O(l)$. Given that heat of combustion of benzene at constant volume is –3263.9 kJ mol^{-1} at 25°C; heat of combustion (in kJ mol^{-1}) of benzene at constant pressure will be :

($R = 8.314\ JK^{-1}\ mol^{-1}$)

JEE 2018

A. 3260

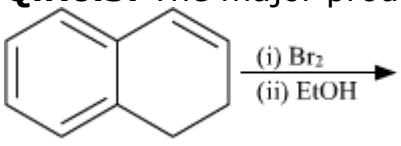
B. –3267.6

C. 4152.6

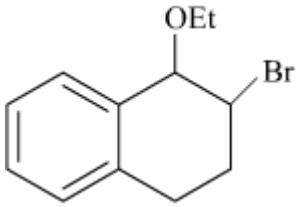
D. –452.46

Q.No.3: The major product of the following reaction is:

JEE 2019



A.



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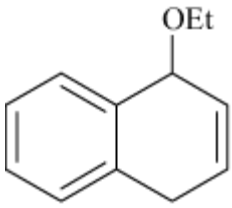

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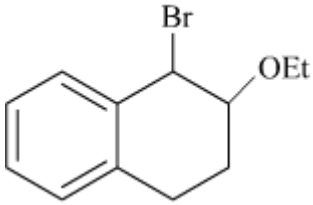
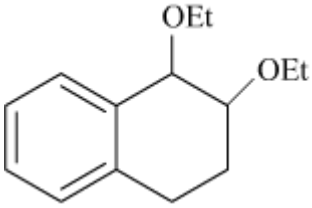
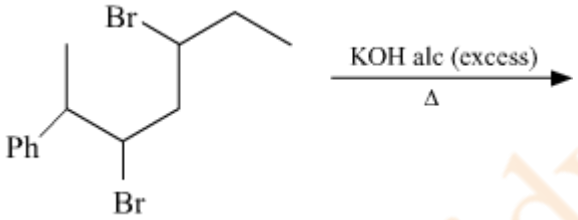


D.

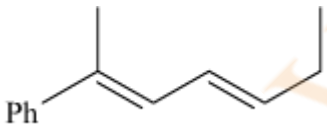


Q.No.4: The major product of the following reaction is:

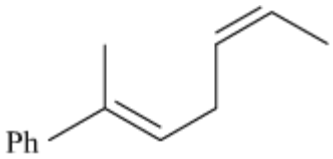
JEE 2019



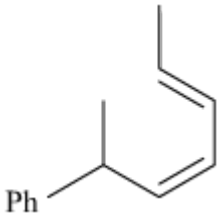
A.



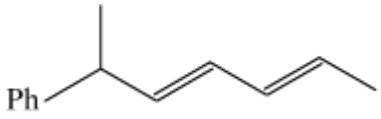
B.



C.

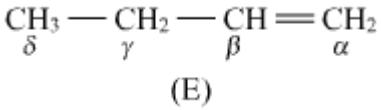


D.



Q.No.5: Which hydrogen in compound (E) is easily replaceable during bromination reaction in presence of light?

JEE 2019



(E)

A. α - hydrogen

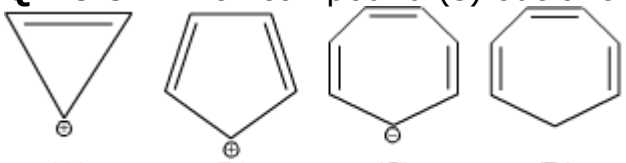
B. γ - hydrogen

C. δ - hydrogen

D. β - hydrogen

Q.No.6: Which compound (s) out of the following is/are not aromatic?

JEE 2019



(A) (B) (C) (D)

A. (B), (C) and (D)

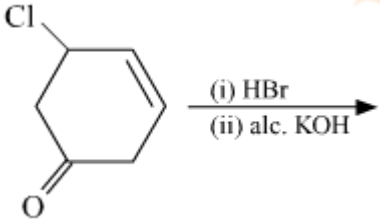
B. (C) and (D)

C. (B)

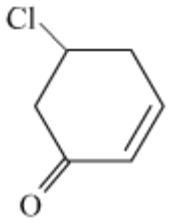
D. (A) and (C)

Q.No.7: The major product of the following reaction is:

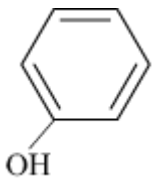
JEE 2019



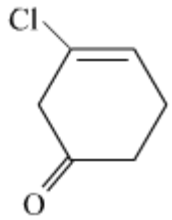
A.



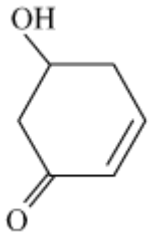
B.



C.

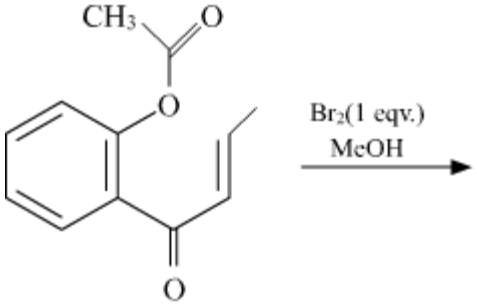


D.

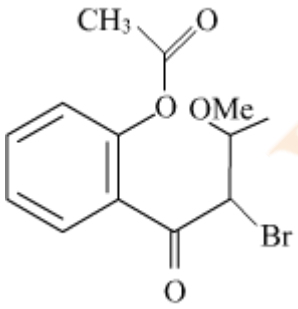


Q.No.8: The major product obtained in the following conversion is:

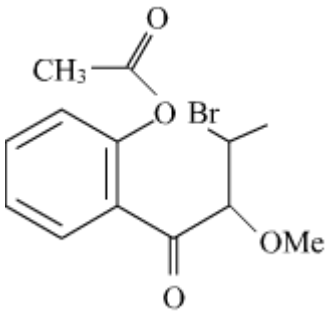
JEE 2019

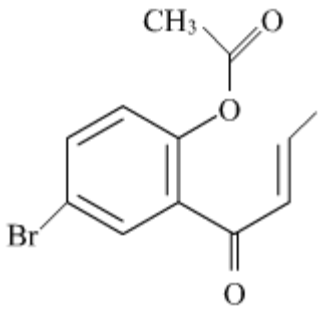


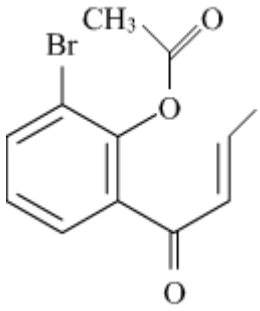
A.



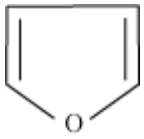
B.

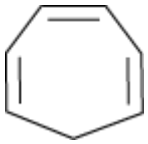


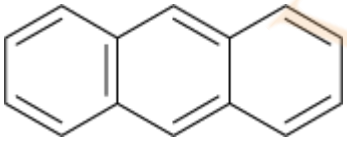
C. 

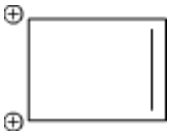
D. 

Q.No.9: Which one of the following compounds is non-aromatic? **JEE 2021**

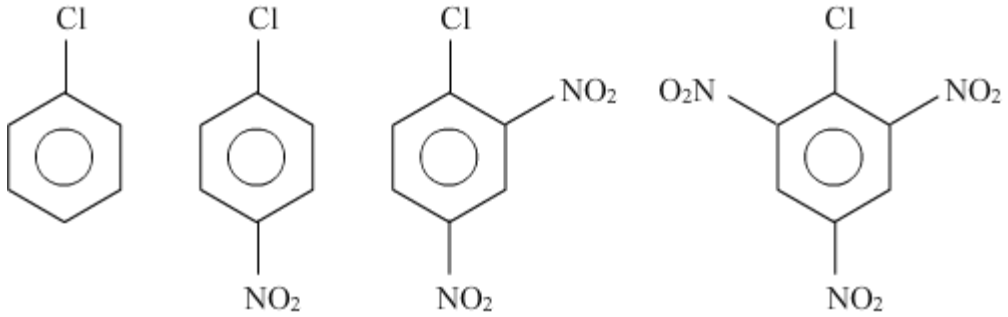
A. 

B. 

C. 

D. 

Q.No.10: The correct order of the following compounds showing increasing tendency towards nucleophilic substitution reaction is :



(i) (ii) (iii) (iv)

A. (iv) < (i) < (ii) < (iii)

B. (iv) < (i) < (iii) < (ii)

C. (iv) < (iii) < (ii) < (i)

D. (i) < (ii) < (iii) < (iv)