## M.Sc. Chemistry Semester-III

## **Elective-II (Drug and Heterocyclic Compounds)**

**Note: Attempt All Questions** 

01. Is pyrone aromatic compound. Explain?

OR

Write chemical reactivity of pyrilium salt?

02. Why heterocyclic compounds are essential to life?

OR

What are heterocyclic aromatic compound?

03. Write note on theories of drug activity?

OR

What are hormones?

04. Give the mechanism for this reaction and write the final product.

$$CH_2 - CH_2$$
/
 $Ethanol$ ?

 $H_2N$ 
Br

OR

Give the mechanism for this reaction.

$$_{3}^{\text{C}_{6}\text{H}_{5}}$$
 +  $_{3}^{\text{C}_{6}\text{H}_{5}\text{CHO}}$  Base ?

05. Give the mechanism for this reaction.

$$C \equiv N$$

$$NH_2 - NH_2 \longrightarrow ?$$

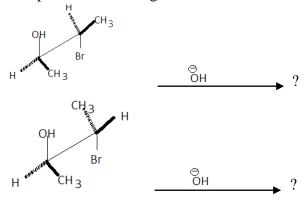
$$C \equiv N$$

06. Briefly discuss history and development of QSAR.

OR

Write the synthesis of oxyprenolol?

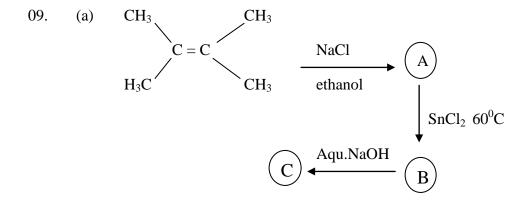
07. Complete the following reaction with mechanism.



OR

Write the synthesis of coumarins?

08. Write the synthesis, reaction of azepines.



Identified A,B,C

(b) Write synthesis of benzofuran?

OR

Briefly discuss synthesis and reactions of triazines.