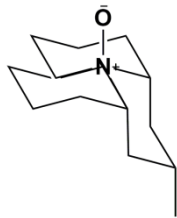
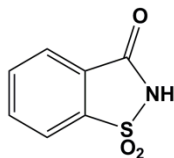
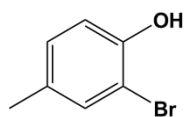


- c. Write the structure of amine required for the synthesis of coccinelline; the defense compound ladybird exude from their knees. The structure of coccinelline is drawn below. Do the disconnection and plan the synthesis of amine. (4)

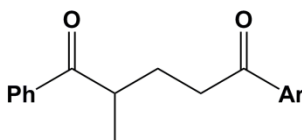
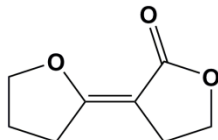


Q-3 Attempt all questions (14)

- a. Do the disconnection and plan the synthesis. (7)

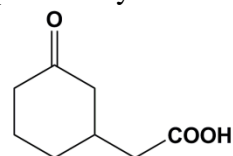
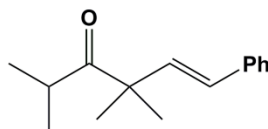


- b. Do the disconnection and plan the synthesis. (7)

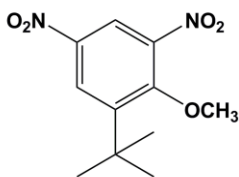
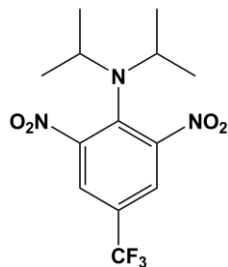


OR

- Q-3 a. Do the disconnection and plan the synthesis. (7)**



- b. Do the disconnection and plan the synthesis. (7)



SECTION – II

Q-4 Attempt the Following questions (07)

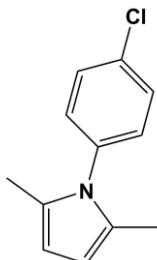
- a. What reactants are used for synthesis of α -hydroxy ketone? (1)
 b. Draw reaction scheme of benzoin condensation. (1)
 c. How can 1,2-diol be synthesized from alkene? (1)



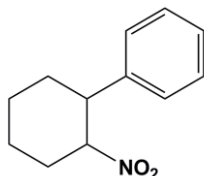
- d. What are the basic requirements of a good protecting group? (1)
- e. Write the name and structure of groups for protection of alcohol functionality. (1)
- f. What reagents are used for urethanes protection and deprotection of amine group? (1)
- g. Which reagents can react with acetal protected aldehyde group? (1)

Q-5 Attempt all questions (14)

- a. Explain the application of protecting groups in dipeptide synthesis of ester of Asp-Phe-OCH₃? (5)
- b. Do the disconnection and plan the synthesis. (5)



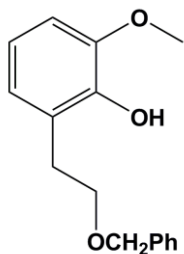
- c. Do the disconnection and plan the synthesis. (4)



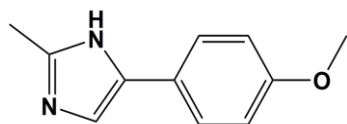
OR

Q-5

- a. Write a note on deprotection of different types of ester. (5)
- b. Do the disconnection and plan the synthesis. (5)



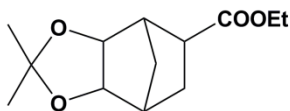
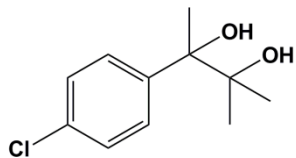
- c. Do the disconnection and plan the synthesis. (4)



Q-6

Attempt all questions (14)

- a. Do the disconnection and plan the synthesis. (7)



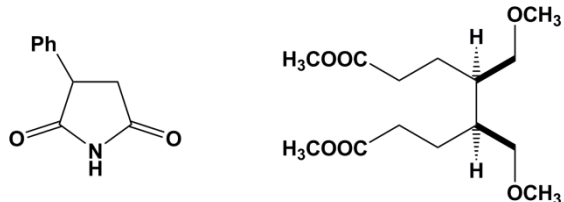
- b. Explain with example, the regioselectivity, stereoselectivity and stereospecificity observed in Diels Elder reaction. (7)

OR

Q-6

Attempt all Questions

- a. Do the disconnection and plan the synthesis. (7)



- b. Grandisol (structure shown below) can be synthesized by the cyclohexenone intermediate. What is the structure of cyclohexenone intermediate? Disconnect all possible intermediates and plan the synthesis. (7)

