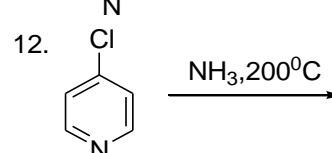
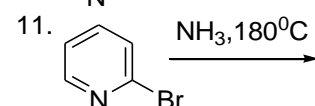
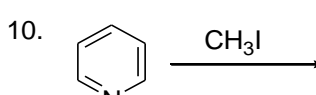
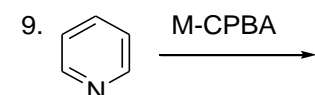
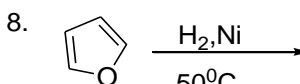
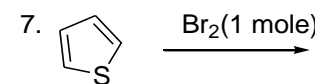
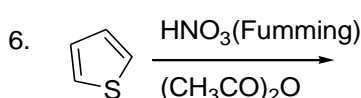
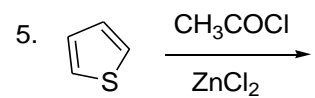
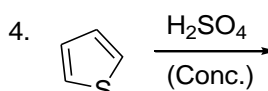
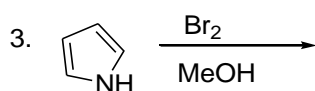
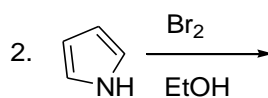
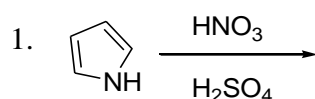


1. Just write the answer in one line. (Each Q. carry 1 mark)

- i. What are the reagents used in mannich reaction?
- ii. What is Hinsberg reagent?
- iii. What are the factors that affects the basicity of ammine?
- iv. Draw the structure of 1,5-Dinitronaphthalene.
- v. Draw the structure of β -naphthol.
- vi. Write the structure of 6-amino-2-naphthalene sulfonic acid?
- vii. Draw the structure of Hygrinic acid.
- viii. Draw the structure of Nicotine.

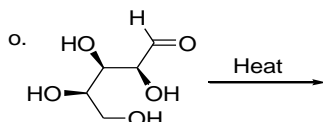
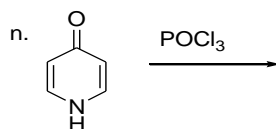
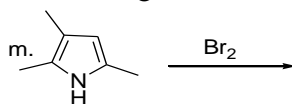
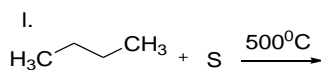
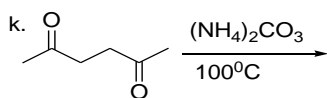
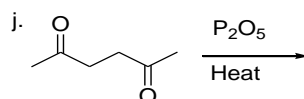
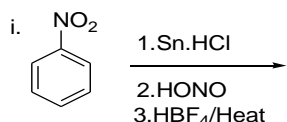
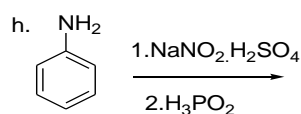
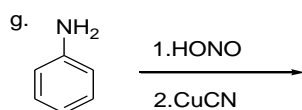
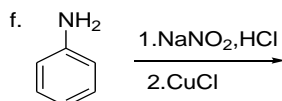
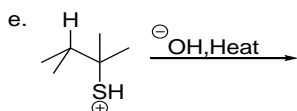
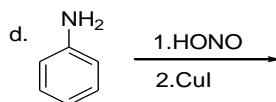
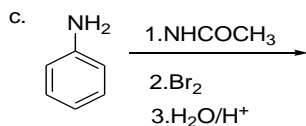
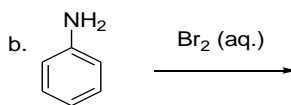
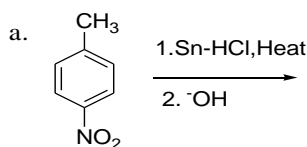
2. Write the Products of the following reactions. (Each Q. carry 1 mark)



3. Answer the Questions. (Each Q. carry 1.5 marks)

- i. Write the examples of natural occurring alkaloids?
- ii. What happens when nicotine is oxidised under drastic condition?
- iii. What is Hoffmann's exhaustive methylation?
- iv. Write the no. of carbon atoms and Isoprene units in mono-terpene?
- v. What is Isoprene Rule?

4. Write the Products of the Following Reactions. (Each Q. Carry 1.5 marks).



5. Explain the following Briefly. (Each Q. Carry 2 Marks).

a. What is Carbylamine Test?

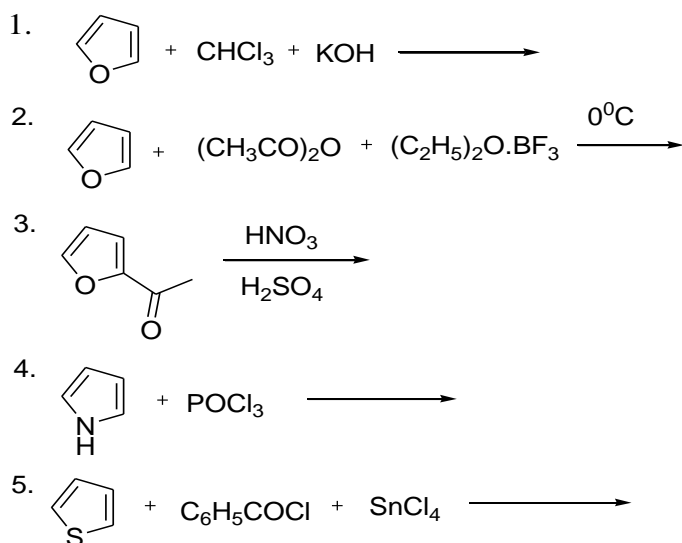
b. How do you distinguish between 1° , 2° and 3° amines by Hinsberg reagent?

c. How do you distinguish between 1° , 2° and 3° amines by Nitrous Acid?

d. Among 1° , 2° and 3° amines which is more basic in aqueous solution and why?

- Write the order of basicity of 1^o, 2^o and 3^o amines in gaseous phase.
- What are the factors that affect the basicity of amine.
- Write the order of basicity of ortho, meta and para methyl aniline.
- Draw the structures of Naphthalene, Anthracene and Phenanthrene.
- Calculate the no. of π -bonds in Naphthalene, Anthracene and Phenanthrene. State whether they are aromatic or not?
- What is Hantzsch reaction to synthesize pyrrole?
- What is Fischer Indole synthesis?
- Between Pyrrole and pyridine which is more aromatic and why?
- Among pyrrole, pyridine and pyrimidine which is more basic and why?
- What are the general methods employed for the determination of the structure of Alkaloid?
- Write the medicinal importance of Morphine and Cocaine?

6. Write the Products of the Following reactions? (Each Q. carry 2 Marks).



7. Explain the Following Questions. (Each Q. Carry 7 Marks).

- What is Gabriel Phthalimide Synthesis? Explain it through mechanism.
- What is Mannich reaction? Explain through Mechanism?
- What is paal-knorr synthesis of Pyrrole? Explain with mechanism?
- Explain the mechanism of Fischer Indole Synthesis?

- v. Write and Explain the decreasing order of aromaticity among Pyrrole, Furan, Thiophene and Benzene?
- vi. Elucidate the structure and synthesis of Nicotine?
- vii. What is Citral and Write the structural synthesis of Citral?

8. Write the Products A, B, C in each reaction? (Each Q. Carry 7 Marks).

