

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot
 Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION APRIL - 2018

B. Voc. Pharmaceutical Analysis & Quality Assurance

BVPAQA 403 – PHARMACEUTICAL ORGANIC CHEMISTRY -II

Duration of Exam – 2.30 hrs

Semester – IV

Max. Marks – 70

Que. 1 (A) – Answer the following Questions

[10]

1. Draw cis and trans 1,2-dichlorocyclopentane.
2. Define: Optical Activity
3. Give Finkelstein reaction.
4. Arrange the following in decreasing order of aromatic behavior.
i) pyrrole ii) furan and iii) thiophene .
5. Draw all possible structural isomers of C₄H₈.
6. Give the reaction of carbyl amine test.
7. Give structure of picric acid.
8. Give structure of chloral.
9. Why alcohol have higher boiling point than corresponding alkanes?
10. Enlist any two chlorinating agents.

Que. 1 (B) – Answer the following Questions

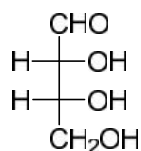
[20]

1. Enlist any four physical properties of amine.
2. Draw all possible constitutional isomers of C₅H₁₂O.
3. Explain lucas test for identification of types of alcohol.
4. Differentiate meso compound and racemic mixture.
5. Give Swarts reaction with an example.
6. Why electrophilic substitution reaction takes place at C₂ in pyrrole, furan and thiophene?
7. Why pyridine is less basic than pyrrole?
8. Enlist any four physical properties of ether.
9. Give the possible products of propane reacting with conc HNO₃ at high temperature.
10. Give preparation of iodoform and its use.

Que. 2 Answer the following Questions (Any Four)

[20]

1. Explain the separation of 1^o, 2^o and 3^o amines.
2. Discuss method of preparation of ether.
3. Draw all possible pairs of enantiomers and diastereomers of the following compound with their absolute configuration.



4. Give synthesis of haloalkane from alkene by markonikov reaction with mechanism.
5. Explain synthesis of pyridine.
6. Explain synthesis of alcohols from reduction of aldehyde and ketone compounds with mechanism.

Que. 3 Answer the following Questions (Any Four)

[20]

1. Explain synthesis of alcohol by hydroboration-oxidation from alkene with mechanism.
 2. Describe any five chemical properties of furan.
 3. Explain various electrophilic substitution reactions of chloro benzene.
 4. Explain measurement of optical activity by polarimeter.
 5. Explain various electrophilic substitution reactions of aryl ether.
 6. Explain any four preparations of amines.
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