

Code: 17S02101

M.Pharm I Semester Regular Examinations February 2018

ADVANCED ORGANIC CHEMISTRY – I

(Pharmaceutical Chemistry)

(For students admitted in 2017 only)

Time: 3 hours

Max. Marks: 60

Answer all the questions

- 1 (a) Discuss the reaction mechanism of SN1 and SN2 and prove that SN2 proceeds Walden inversion.
(b) Explain influence of solvents in nucleophilic substitution.

OR

- 2 (a) Compare and contrast SN1 versus SN2 mechanism.
(b) Add a note on dehydrohalogenation of alkyl halides.

3 Explain in detail about mechanism, applications and limitations (if any) for:

- (a) Vilsmeier-Haack.
(b) Michael addition.

OR

4 Discuss the applications, uses and reactions of:

- (a) Baeyer-Villiger oxidation.
(b) Brook rearrangement.

5 Write a short note on:

- (a) Protection for carbonyl group.
(b) Protection for amino group and amino acids.

OR

6 Discuss the applications, uses and preparation of:

- (a) N-bromosuccinimide.
(b) Wittig reagent.

7 Explain mechanism and applications involved in the synthesis of:

- (a) Imidazole.
(b) Pyrazole.

OR

8 Explain synthesis and uses of:

- (a) Trimethoprim.
(b) Mercaptopurine.
(c) Antipyrin.

9 (a) Explain basic principles, terminologies used in retrosynthesis with its advantages.

- (b) Discuss disconnections for 1, 4-difunctionalized compounds.

OR

10 (a) Write a note on functional group interconversion and additions.

- (b) By taking one example, discuss the strategies for the synthesis of any four membered ring compound.
