

[LB 4258]
AUGUST 2012
Sub. Code: 4258
SECOND YEAR B.PHARM. EXAM
Paper III – ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY
Q.P. Code : 564258
Time: Three hours
Maximum: 100 Marks
(180 Min) Answer ALL questions in the same order
I. Elaborate on:
**Pages Time Marks
(Max.)(Max.)(Max.)**

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|---|----|----|----|
| 1. Define and classify alkaloids with examples. Discuss the chemistry and pharmacological activity of ephedrine. | 19 | 33 | 20 |
| 2. Write the definition, reaction, mechanism and applications of (i) Beckmann rearrangement and (ii) Birch reduction. | 19 | 33 | 20 |

II. Write notes on:

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|--|---|---|---|
| 1. Write a brief note on Absolute configuration. | 3 | 8 | 5 |
| 2. Explain Clemmenson's reduction in detail. | 3 | 8 | 5 |
| 3. (i) Fischer indole synthesis (ii) Skraup synthesis. | 3 | 8 | 5 |
| 4. Explain the oxidative uses of lead tetraacetate. | 3 | 8 | 5 |
| 5. Give any two methods of preparation of Oxazole and Thiophene. | 3 | 8 | 5 |
| 6. Explain conformational analysis of ethane. | 3 | 8 | 5 |
| 7. Write short notes on Atropine and related alkaloids. | 3 | 8 | 5 |
| 8. Write the electrophilic substitution reactions of Pyrrole. | 3 | 8 | 5 |

III. Short Answers:

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| 1. Define racemic modification. | 1 | 5 | 2 |
| 2. What are enantiomers. | 1 | 5 | 2 |
| 3. Write the definition and reaction for Meerwein Ponderoff reduction. | 1 | 5 | 2 |
| 4. Give any two methods of preparation of pyrimidine. | 1 | 5 | 2 |
| 5. What is dehydrogenation. | 1 | 5 | 2 |
| 6. What are flavonoids. | 1 | 5 | 2 |
| 7. Write any two uses of Selenium oxide. | 1 | 5 | 2 |
| 8. Define alkaloids and give examples. | 1 | 5 | 2 |
| 9. Write the structure of i) Vitamin D ii) Ephedrine | 1 | 5 | 2 |
| 10. Give any two reactions of thiophene. | 1 | 5 | 2 |
