

12. (a) Write note on :

- (i) DDQ
- (ii) LDA

(5 + 5)

Or

(b) Explain the following :

- (i) Periodic acid
- (ii) Osmium tetroxide
- (iii) Selenium dioxide.

(3 + 3 + 4)

UNIT V

- 13. (a) State the isoprene rule. (2)
- (b) Define carbohydrates. (2)

14. (a) Explain the general methods of structural determination of polysaccharides. (6)

Or

(b) Write about the biosynthesis of terpenoids. (6)

15. (a) Discuss the general methods of structural determination of terpenoids. (10)

Or

(b) Describe the structure and synthesis of camphor. (10)

5264/MC6/PCHE06

NOVEMBER 2018

ORGANIC CHEMISTRY — II

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

UNIT I

1. (a) Distinguish between the configuration and conformation. (2)

(b) Give the Favorskii rearrangement. (2)

2. (a) Explain the mechanism of Claisen with example. (6)

Or

(b) Give a brief account of conformation of decalins. (6)

3. (a) Discuss the conformation and reactivity in cyclohexane derivatives with any two examples. (10)

Or

(b) Describe the mechanism of the following :

(i) Pinacol-pinacolone rearrangement

(ii) Beckmann rearrangement. (5 + 5)

UNIT II

4. (a) What is quantum efficiency? (2)
- (b) Explain the paterno-Buchi reaction. (2)
5. (a) Distinguish between the thermal and photochemical reactions. (6)

Or

- (b) Write the mechanism of di- π methane rearrangement. (6)

6. (a) Write note on :

- (i) Fluorescence
- (ii) Phosphorescence. (5 + 5)

Or

- (b) Explain the following :

- (i) Sigmatropic rearrangement with example
- (ii) cycloaddition reactions with example. (5 + 5)

UNIT III

7. (a) What are functional group interconversions? (2)
- (b) Give the Umploung synthesis. (2)

8. (a) Write the retrosynthetic analysis of simple organic compounds with any two examples. (6)

Or

- (b) Write the use of activating and blocking in synthesis. (6)

9. (a) Discuss the schematic analysis of the total synthesis of 2, 4-dimethyl-2-hydroxypentanoic acid. (10)

Or

- (b) Describe the linear, convergent and relay approaches to the total synthesis. (10)

UNIT IV

10. (a) Write the name and structure of DMSO. (2)

- (b) Define phase transfer catalysts. (2)

11. (a) Explain the preparation and properties of reactions of Wilkinson's catalyst. (6)

Or

- (b) Write the DCC reagent used in organic synthesis with any three examples. (6)