THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

(LN 4258) AUGUST 2018 **Sub. Code: 4258**

B.PHARM. DEGREE EXAMINATION
SECOND YEAR
PAPER III – ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

Q.P. Code: 564258

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Explain the various methods of determination of configuration of geometric isomers.
   b) Give important methods of preparation and chemical reactions of indole.

2. a) Discuss the chemistry of camphor.
   b) Explain the chemistry of Vitamin B_2 and Folic acid.

II. Write notes on: **(8 x 5 = 40)**

1. Explain the method of resolution by formation of diastereomers with examples.
2. Explain optical isomerism in Meso Tartaric acid.
3. Discuss the chemistry of pyrimidine.
4. Write the important reactions of quinoline.
5. Write the chemistry and uses of alpha-pinene.
6. Explain the basic ring system and nomenclature of steroid nucleus.
7. Discuss the inter-relationship between caffeine, theophylline and theobromine.
8. Discuss the chemistry of Digoxin.

III. Short answers on: **(10 x 2 = 20)**

1. What is conformational analysis?
2. Define relative configuration and absolute configuration.
3. Give two uses of mercuric acetate.
4. What is Darzen's reaction?
5. Give two methods of synthesis of thiazole.
6. Write any two reactions of Pyrazole.
7. Classify terpenoids.
8. What are sennosides?
9. Write the tautomers of uric acid.
10. Write the structure of Vitamin B_6 and its uses.

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