

(b) Write name and formulae of four supra drugs along with their synthesis. 10

9. Outline a method for synthesis of each : 16

- (i) Paulidrin
- (ii) Quinacrine
- (iii) Chlorambucil
- (iv) Pentaquin
- (v) Sulphafurazole

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76059

**M.Sc. 3rd Semester Chemistry
Examination-December, 2015**

ORGANIC SPECIAL-III

Paper : CH-503 P-XIII

Time : 3 hours

Max. Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all, selecting **one** question from each Section. Q. No. 1 is **compulsory**. All questions carry equal marks.

1. (a) Define chemotherapy. 2
- (b) What is Wetzig reaction ? Explain. 2
- (c) Name two antipyretics and give their structures. 2
- (d) How is pyrimidine prepared from barbituric acid ? 2

- (e) Give products of nitration of thiazole and explain their formation. 2
- (f) Why hydrogen at C-2 position in oxazole is acidic in nature. 2
- (g) Why reactions of phosphonium ylides carried out in dry nitrogen atmosphere. 2
- (h) Write structure of quinine. 2

SECTION - A

2. (a) How thiazoles can be synthesized? Write down its various reactions. 12
- (b) Discuss about basicity of 1,3 azoles. 4
3. (a) Give general behaviour and aromaticity in azoles. Also give their classification. 8
- (b) Discuss two methods of synthesis of unidazoles and oxazoles. 8

SECTION - B

4. (a) Discuss structure of caffeine along with its synthesis. 13
- (b) Give two methods of synthesis of uracil. 3

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5. (a) Give two methods of synthesis of adenine. 4

- (b) How the structure of guanosine was established? Give its synthesis. 12

SECTION - C

6. (a) Explain with mechanism: 12

(i) Sommllet-Hanser rearrangement

(ii) Steven's rearrangement

- (b) How diazonium ylides are prepared? Give their applications. 4

7. (a) Explain the formation of phosphorus and sulphur ylides. Explain their applications. 12

- (b) What are immonium ylides? Give their role in synthesis of organic compounds. 4

SECTION - D

8. (a) Write a note on antipyretics. 6

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