

QR

- (p) Discuss use of *cureuma longa* linn as antitumor agent. 5
- (q) Discuss use of *Phyllanthus niruri* in indigenous system. 5
- (r) How is *Gymnema sylvestre* used in diabetic therapy ? 6



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Third Semester M. Sc. (Part-II) (CBCS)
Examination

PHARMACEUTICAL CHEMISTRY

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Natural Products of Medicinal Interest

P. Pages : 4

Time : Three Hours]

[Max. Marks : 80

Note : All questions are compulsory.

1. (a) Discuss the general methods employed for the structure determination of alkaloids. 5
- (b) Give Morrison synthesis of morphine. 5
- (c) Give an account of quinoline nucleus in quinine. 6

OR

- (p) What are alkaloids ? Give the method of synthesis of reserpine. 6
- (q) Write an account on phenanthrene nucleus in morphine. 5
- (r) Discuss the methods for isolation of alkaloids. 5

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2. (a) Discuss the structure of cardiac glycosides. 5
- (b) Discuss the position of hydroxy group and double bond in cholesterol. 5
- (c) Explain spiroketel side chain present in sapogenin. 6

OR

- (p) Discuss the structure of ring C and D in cholesterol. 5
- (q) How is position of angular methyl group in cholesterol is determined ? 6
- (r) Draw the structure of any two cardiac glycosides. 4

3. (a) How is the structure of triterpenoids established on the basis of chemical reactions ? 6
- (b) Explain the synthesis of ratin. 5
- (c) Explain the presence of five hydroxyl group in quercetin. 5

.OR

- (p) Explain the structure of quercetin on the basic of Kostaneckis synthesis. 5

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- (q) How is Reformatisky reaction useful in the synthesis of terpenoids ? 6
- (r) How will you prepare cyanidine chloride from quercetin pentacetate ? 5

4. (a) What is macrolides ? Explain str. of erythromycin - A. 6
- (b) Describe the mechanism of action of nocardicins. 5
- (c) Describe structure of linomyeins. 5

OR

- (p) Describe the mechanism of action of cephalosporins. 6
- (q) Discuss the structure of amino glycosides. 5
- (r) Discuss the structure of penems. 5

5. (a) Discuss chemical constitution of gynnema sylvestre. 5
- (b) Discuss the active constituent of graccum. 5
- (c) Explain how is Salacia reticulate used in diabetic therapy. 6

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