



Printed Pages : 2

PHAR – 244

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 5107**

Roll No.

### B. Pharm.

(SEM. IV) EXAMINATION, 2006 – 07

### PHARMACEUTICAL ANALYSIS - II

Time : 3 Hours]

[Total Marks : 80

- Note : (1) Attempt *all* the questions.  
(2) All questions carry *equal* marks.

1 Answer any **two** of the following : **8+8=16**

- (a) TLC
- (b) Packing and charging of column in column chromatography
- (c) Descending paper chromatography.

2 Write any **two** of the following : **16**

- a. Importance and applications of HPLC
- b. Working of G.L.
- c. Thermal conductivity detector.

3 Give the basic principle, instrumentation and **8+8**  
applications of potentiometry or conductometry.

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[Contd...

**4** Answer any **two** of the following : **8+8**

- a) Give the preparation and estimation of  $\frac{M}{10}$  sodium methoxide solution.
- b) Discuss theory of complexometry titration and indicators used in complexometry.
- c) Estimation of calcium and magnesium in a mixture.

**5** Answer any **two** of the following : **8+8**

- a) 800 mg of chloramphenicol powder was completely reduced with Zn + HCl acid. The solution was filtered and then 10 ml. conc HCl was added. This solution was titrated against 0.09810 M sodium nitrite using potentiometer for end point. The volume of 0.09810 M NaNO<sub>2</sub> solution used was 20.25 ml. Find out the percentage of chloramphenicol. Mol. wt. of chloramphenicol is 323. Give the theory behind it.
- b) 0.2128 gm. of an organic compound was digested using cone. H<sub>2</sub>SO<sub>4</sub> & CuSO<sub>4</sub>. This solution was subjected to Kjeldahl method of estimating of nitrogen. The volume of 0.08929N HCl consumed to neutralize liberated ammonia was found to be 6.5 ml. Find out the percentage of nitrogen in the sample. Give the theory of nitrogen estimation by Kjeldahl method.
- c) How will you estimate ethanol in galenicals in the presence of volatile components, steam volatilized fatty acids.