Name.....

(b) No. of Q........

Total No. of.......

1.1.1

Pharmaceutical Analysis

(B. Pharmacy 1st Semester) 2063
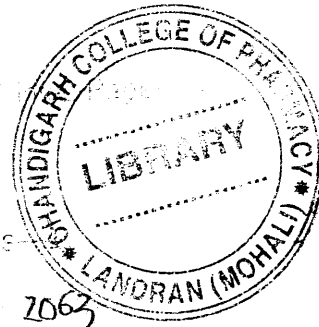
Time : 3 Hours.

Note :– This paper consists of Three Sections. Section A is compulsory. Answer any ..... from Section B and any Three questions from Section C.

Section–A

(a) How do you define an assay.

(b) Define the terms trace constituent ..... and minor constituent

(c) Calculate and express the ..... number of significant figures

120 ..... 390.00 + 0.0208

$950.0 \times 0.005 \times 1.498.$

Turn Over

1.1.1

AL–5

(d) Give the conjugate bases for the following :
HCl, Water.

(e) Explain the concept of activity and activity coefficient.

(f) What is Ka and what is its relation with acid strength ?

What is pH a solution aving hydronium ion concentration of 1 mol/l ?

Calculate the pH of 0.05 M sodium benzoate solution pKa of benzoic acid is 4.2.

What is colour change interval of an indicator ?

What is function of starch used in iodine solutions ?

(m) Arrange the following in the order of their oxidizing power :

$KMnO_4$, $K_2Cr_2O_7$, Iodine and ceric sulphate.

(n) Calculate the solubility of silver chloride in 0.01 M NaCl solution. Ks for AgCl is 1.1×10^{10} mol^2/l.

(o) What is the use of digestion of precipitates in gravimetry ?

Section—B   Marks : 5 Each

2. 20 determinations were made for weight of aspirin in tablet samples. Mean result was 495 mg. Calculate whether result is significant in the assay if true value is 488.5 mg and standard deviation is 7.4. (Given tabulated t-values are 1.96, 1.729 and 2.539 for probability levels 0.05 and 0.01 respectively.)

... curve of neutralisation curve ... the titration ...

... hydrochloric acid ? Which indicators are used in this titration ?

Give pharmaceutical applications of … method.

Solubility of silver chloride is … Calculate its solubility product.

Explain the thermogravimetric curve of … substance highlighting its salient points.

Section-C

What is role of solubility product … in determining the end point in Mohr's method of chloride estimation ? How does this method … Volhard method ?

Discuss various types of errors in pharmaceutical analysis.

Weight of ten tablets in a weight variation test are … for. Calculate mean, standard deviation and coefficient of variation for the data :

200.0, 198.5, 205.5, 195.0, 210.2, 190.5, 192.0, … 6.5, 202.7.

Derive the expression for hydrolysis constant and … solution of a salt of weak acid and … …

1.1.1

AL—5