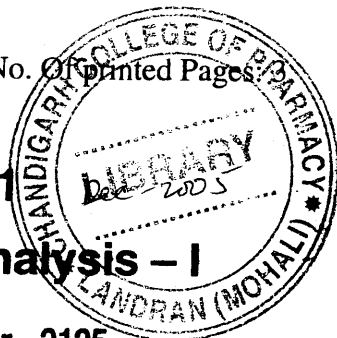Roll No....................

Total No. Of Questions :10]

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Pharmaceutical Analysis – I

B-Pharm 1ˢᵗ Semester - 2125

Time allowed: 3 Hours   Maximum Marks: 80

Note: This paper consists of three sections. Section A is compulsory. Attempt four questions from Section B and three questions from Section C.

Section A (2 x 15 = 30)

1.a) What is a secondary standard? Give one example.

b) Define oxidizing agent and a reducing agent. Give one example each.

c) calculate the pH of a solution containing 2.4×10^{-6} g-eqts. Of H_3O^+ per ltr.

d) Calculate and express the result to correct number of significant figures $120.83 + 420.08 + 0.0104$.

e) Define co-precipitation.

f) What filtering medium is used to filter a solution of potassium permangnale and why?

g) Why is potassium thiolyanate added in the assav of copper sulphate.

h) Define key numbers.

i) Why is starch indicator added towards the end of a titration?

j) Write Fayan's method's application.

k) What is standard reduction potential?

l) What is the role of glycerine in the assay of boric acid?

m) Write Henderson- Hasselbach equation.

n) How will you prepare and standardiz approximately 0.1 N Hcl.

o) What is the difference between ionic product and solubility product?

Section B (4 x 5 = 20)

2. Give Pharmaceutical applications of iodometric methods.

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3. How can carbonate and bicarbonate contents be determined if they are present simultaneously.

4. Give the theory involved in acid base indicators.

5. Write a note on ceric sulphate titrations.

6. Explain the neutralization curve of a strong acid and a strong base.

Section C (3 x 10 = 30)

7. Write a note on atrgentimetric method of analysis.

8. What are the factors which affect the purity of precipitate in gravimetric analysis.

9. Describe in detail the modern concept of redox titrations. How would you calculate the equivalent weight of an oxidizing agent? Explain with examples.

10. Enumerate various methods to minimize errors in pharmaceutical analysis.

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