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Total No. of Questions : 10]

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B. Pharmacy (Sem. - 1st)

PHARMACEUTICAL ANALYSIS - I

SUBJECT CODE : PHM - 1.1.1 (2k9 Batch)

Paper ID : [D0145]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours **Maximum Marks : 80**

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Three** questions from Section - C.

Section - A

Q1) *(15 × 2 = 30)*

a) Standard deviation.

b) Student t-test.

c) Conjugate acid and conjugate base.

d) Precision.

e) Self indicator.

f) Blank titration.

g) Co-precipitation.

h) Digestion.

i) Salt hydrolysis.

j) Titration curve.

k) Oxidation number.

l) Standard reduction potential.

m) Colloids solution.

n) Acidimetry.

o) Buffer solution.

Section - B

(4 × 5 = 20)

Q2) Discuss various theories of neutralization indicator.

Q3) Discuss titration curve of weak acid with weak base.

Q4) Describe Idometric and Iodimetric assays with suitable examples.

Q5) What is the critical role played by common ion effect in gravimetric analysis? Explain.

Q6) Explain role of solubility product in precipitation reactions governing argentimetric titration methods.

Section - C

(3 × 10 = 30)

Q7) What are the two major types of error encountered in pharmaceutical analysis? Explain with suitable examples.

Q8) What is Volhard's method of argentimetric titration? Explain it with the help of equation and the precautions involved in it.

Q9) Describe measurement of electrode potential and its application in determining equilibrium constant of redox reaction.

Q10) Write short notes on :

(a) Organic precipitant.

(b) Titration of polyprotic acid.