B.Pharmacy (Sem.-1st)

PHARMACEUTICAL ANALYSIS - I

SUBJECT CODE :PHM - 1.1.1

Paper ID : [D0101]

[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)   Primary standard.

   b)   Molarity and Molality.

   c)   Accuracy and Precision.

   d)   Iodimetry and Iodometry.

   e)   Oxidising and reducing agents.

   f)   Solubility product.

   g)   Common ion effect.

   h)   Mixed indicators.

   i)   Co-precipitation.

   j)   Buffers.

   k)   Nearst equation.

   l)   Significant figures.

   m)   What is relevance of Q-test in pharmaceutical analysis.

   n)   How will you standardize 0.1 N $KMnO_4$

   o)   Cell representation.

Section - B

(4 × 5 = 20)

Q2) Derive Henderson-Hesselbach equation for acidic buffer.

Q3) What are errors, classify them with examples.

Q4) Discuss various theories of neutralization indicators.

Q5) Write a note on Volhard's method.

Q6) What are oxidation-reduction curves.

Section - C

(3 × 10 = 30)

Q7) Describe the various steps involved in gravimetric analysis.

Q8) Calculate mean, standard deviation and coefficient of variation for contents of aspirin in 10 tablets (mg) all as below :

4.5, 4.6, 5.0, 4.6, 4.0, 4.1, 4.8, 4.0, 4.9,

Q9) What are precipitation titrations? Explain the various factors affecting solubility of a precipitate.

Q10) Write down the principle and procedure involved in the assay of :

    (a) Boric acid.

    (b) Ammonium chloride.

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