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NAME OF PROGRAM
(SEM-II) THEORY EXAMINATION 2017-18
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours *Total Marks: 70*

Note: **1.** Attempt all Sections.

SECTION A

1. Attempt *all* questions in brief. **2 x 7 = 14**

a. What is accuracy and precision?
b. Write the equivalent weight of $KMnO_4$ in acidic, basic and neutral medium.
c. What are pM indicators? Give examples.
d. Define electrode potential and standard electrode potential.
e. What is radioimmunoassay?
f. Define 'polyprotic system'.
g. Give the principle of diazotization titration.

SECTION B

2. Attempt any *three* of the following: **7 x 3 = 21**

a. Explain neutralization curve between strong acid- strong base with complete illustration including neutralization curve.
b. Give the principle of precipitation titration. Explain Fajan's method in detail.
c. Explain Redox titration curve with suitable example.
d. Describe Kjeldahl's method for nitrogen determination.
e. Discuss the significance of quantitative analysis in quality control.

SECTION C

3. Attempt any *one* part of the following: **7 x 1 = 7**

(a) What are primary and secondary standards? Discuss their properties.
(b) Explain in brief various types of errors encountered in quantitative analysis.

4. Attempt any *one* part of the following: **7 x 1 = 7**

(a) Write a note on various theories of acid base indicators.
(b) Write assay method for boric acid as per IP.

5. Attempt any *one* part of the following: **7 x 1 = 7**

(a) What is the difference between iodimetry and iodometry? Give examples of such titrations.
(b) Write the method for ascorbic acid tablets as per IP.

6. Attempt any *one* part of the following: **7 x 1 = 7**

(a) Explain masking and demasking in complexometric titration.
(b) Discuss the method for determination of hardness of water.

7. Attempt any *one* part of the following: **7 x 1 = 7**

(a) Explain in detail Karl Fischer titration.
(b) Discuss the method for assay of sodium iodide (I^{131}).