Registration No : | | | | | | | | | | |

Total Number of Pages : 03 **B.Pharm**
15PH201

2nd Semester Back Examination 2017-18
PHARM ANALYSIS - I
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 100
Q.CODE : C700

Answer Part-A which is compulsory and any four from the Part-B.
The figures in the right hand margin indicate marks.
Answer all parts of a question at a place.

Part-A

1. Answer the Followings : **(2 x 10)**

a) Differentiate reproducibility and repeatability.
b) Define acid and base according to Lewis concept. Give examples.
c) What is significant digit? How many digits are significant in 0.00050kg?
d) What is a mixed indicator? Give example.
e) What is the role of nitrobenzene in precipitation titration?
f) Name two indicators used in non-aqueous method of titration.
g) Differentiate positive electrode potential and negative electrode potential.
h) Classify redox indicators with suitable examples.
i) Write the structure and use of EDTA.
j) What is titration error?

2. Choose the correct answer : **(2 x 10)**

a) Give the formula for finding equivalent weight for acid:
(a) Mol. Wt/Acidity
(b) Mol. Wt./Basicity
(c) Mol. Wt./ Valency
(d) None of the above

b) The substance which can be directly weighed and diluted to a definite volume to get a definite strength is called:
(a) Primary Standard
(b) Secondary standard
(c) Tertiary standard
(d) Perfect standard

c) Which of the following is a self indicator?
(a) Pot. Dichromate
(b) Pot. Permanganate
(c) Ferric cyanide
(d) All of the above

d) Which alkali methoxide is mostly preferred for non-aqueous titrations?
(a) Pot. Methoxide
(b) Lithium methoxide
(c) Sod. Methoxide
(d) None of these

e) Iodometry titration quantifies:
- (a) Acidifying agent
- (b) Oxidizing agent
- (c) Reducing agent
- (d) Both b & c

f) Which of the following error cannot be rectified?
- (a) Personal
- (b) Random
- (c) Reagent
- (d) Error of method

g) Which of the following is true?
- (a) All chelates are complex
- (b) All complex are chelates
- (c) Chelates are Ligands
- (d) All of these

h) Which of the following is a method of precipitation titration?
- (a) Mohr's method
- (b) Fajan's method
- (c) Volhard's method
- (d) All of these

i) Which of the following is not an indicator?
- (a) Methyl red
- (b) Methyl orange
- (c) Methyl pink
- (d) Methyl yellow

j) The titration in which silver nitrate is used as a titrant is called:
- (a) Mercurometric titration
- (b) Limit test
- (c) Argentometric titration
- (d) None of these

Part-B

3. a) With the help of representative graph, explain the titration curve of a strong acid titrated with a strong base. What idea is gathered from such graphs? **(10)**

b) Describe rules for retaining significant digits with suitable examples **(5)**

4. a) Name two theories of indicators. With the help of these theories, explain the concept of colour change of acid-base indicators. **(10)**

b) Add a note on Ideal characteristics of primary standard. **(5)**

5. Write notes on :

a) Solvents used in non-aqueous titration **(5)**

b) Preparation and standardization of 0.1N TBAH **(5)**

c) Estimation of Adrenaline **(5)**

6. a) Describe the principle behind Mohr's method and Volhard's method of titration. **(10)**

b) Give the procedure for assay of NaCl. **(5)**

7. **a)** Write a note on types of complexometric titrations. How can you estimate two metal ions present in a mixture? **(10)**

b) Describe the method of estimation of calcium by EDTA. **(5)**

8. **a)** Write the theory of redox titrations. How will you calculate strength and equivalent weights of oxidizing and reducing agents? Explain with suitable examples. **(3 + 7)**

b) Write a note on preparation and standardization of 0.1N $KMnO_4$ solution. **(5)**

9. **Write short note on :**

a) Handerson-Hasselbalch's equation and its application. **(5)**

b) Types of errors **(5)**

c) Amino acid titrations **(5)**