M. P. M. (Sem. III) (CBCS) Examination

December – 2017

Pharmaceutical Analysis - I

Time : **3** Hours] [Total Marks : **80**

Instructions : (1) Figures to the right indicate marks.

(2) Answer any three questions from each section question one and question five are compulsory.

(3) Draw neat and clean diagram when required.

SECTION - I

1 Answer the following questions : (any **seven**) 14

(a) Comment: Solution of Salt (derived from strong acid and weak base) will be acidic.

(b) Comment: Phenolphthalein remains colourless at acidic pH and gives pink colour at basic pH.

(c) Explain: Oxidising and reducing agent with example.

(d) Define Accuracy and Precision.

(e) Classify ligand with example.

(f) Absolute Error.

(g) Comment: Acetic acid is a amphiprotic solvent.

(h) Composition of Karl Fischer reagent.

2 Answer the following questions :

(a) Discuss types of solvent in Non aqueous titration. 7

(b) Explain methods for balancing the redox reaction. 6

3 Answer the following questions :

(a) Enlist various methods for detection of end point in precipitation titration. Explain any one. 7

(b) Explain neutralization curve for titration of strong acid with strong base. 6

4   Answer the following questions :

(a)   How error affecting pharmaceutical analysis? Discuss   7
the determinate error.

(b)   What do you mean by differentiating and levelling   6
solvents? Explain with example.

SECTION - II

5   Answer any **two** out of three :   14

(a)   Short note on Complexomertic titration.

(b)   Give criteria for the precipitation titration. The pKsp,
for $Fe(OH)_2$ is 15. Calculate the molar solubility for
$Fe(OH)_2$.

(c)   Discuss: Kjeldahl method.

6   Answer the following questions :

(a)   Define pH and Derive Handerson - Hesselbach   7
equation for acid and base.

(b)   Discuss: Theory of acid - base indicators.   6

7   Answer the following questions :

(a)   Discuss Theories of Acid - Base.   7

(b)   What is difference between determinate and random   6
error? Give at least two examples in each error.

8   Answer the following questions :

(a)   Write a note on Gravimetric Analysis.   7

(b)   Discuss: Mercurimetry.   6

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