BACHELOR OF PHARMACY EXAMINATION, 2018

(1st Year, 2nd Semester)

Pharmaceutical Chemistry – II

Time: Three hours. Full Marks: 100

Answer any ***five*** questions taking at least ***two*** from each group

GROUP – A

1. (a) Describe the neutralization curve of an acid based titration with example. What is universal indicator; explain its composition and use.

   (b) Describe the assay of Aspirin as prescribed in IP 2014.

   10+10 = 20

2. (a) Explain the role of EDTA in a complexometric titration. Name different indicators used for such types of titration with example.

   (b) What is the difference between Cetirizine and Levo- Cetirizine I.P.? Explain their structural features and the assay procedure as prescribed in IP 2014.

   8+12 = 20

3. Explain the structural features, therapeutic uses, test and assay methods for the following drugs based on the monographs described in I.P. 2014:

   5×4=20

   (a) Amikacin

   (b) Diazepam

   (c) Ibuprofen

   (d) Theophylline

   (e) Imipramine

4. Write short notes on the following: 5×4=20

   (a) Back Titration

   (b) Self-indicator

   (c) British Pharmacopoeia

   (d) Potentiometric Titration

   (e) p-value.

B. PHARM.1st YEAR 2ND SEM. EXAM-2018 F. M.-100

PHARMACEUTICAL CHEMISTRY-II (ANALYTICAL-I)

GROUP - B

5. a. What do you mean by 'Quality Control' of a drug/ pharmaceutical?
   b. What are the sources of impurities? How can you control them in the final product?
   c. What are the tests for purity? Mention the effects of impurities.

2+14+4= 20

6. a. Define limit tests. What are the factors to be considered while fixing the limit of impurities?
   b. Discuss the principles and procedure involved in the limit test for 'Lead', 'Arsenic' and 'Iron' in a pharmaceutical.
   c. Discuss the significance of the following:
      i. Addition of dilute HNO_3 in limit test for chlorides.
      ii. Addition of dilute HCl in limit test for sulphates.
      iii. Addition of citric acid and ammonia solution in limit test for iron.
      iv. Addition of Ammonia and KCN in limit test for lead.

4+12+4= 20

7. a. Define Gravimetry and mention their advantages and disadvantages.
   b. What are the optimum conditions for precipitation? Mention the characteristics of washing solution.
   c. Discuss the following term: Peptization, Co-precipitation, post precipitation, Digestion and give some examples of organic precipitants.
   d. Describe the steps involved in Gravimetric determination of a pharmaceutical/ chemical.

3+4+4+2+7= 20

8. Write short notes on the following (any two):
   a. Nitrogen determination by Kjeldahl method.
   b. Determination of Moisture content by Karl Fischer method.
   c. Oxygen flask combustion method.

10+10= 20