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Total No. of Printed Pages: [01]

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B. Pharmacy (Semester – 1st)
PHARMACEUTICAL ANALYSIS-I
Subject Code: BPHA1103
Paper ID: [170104]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) What is color change interval of an acid base indicator? Give its significance.
- b) What is specific conductance and molar conductance?
- c) What are aprotic solvents? Give examples.
- d) Briefly write about masking and demasking reagents in Complexometric titration.
- e) What is reference electrode? Give two examples.
- f) Write the importance of Nernst equation.
- g) What are different methods of expressing concentration?
- h) What are masking and demasking agents?
- i) Enlist any four indicators used in non-aqueous titration.
- j) Give examples of redox indicators.

Section – B

(5 marks each)

- Q2. Give a brief account on primary and secondary standards used in pharmaceutical analysis.
- Q3. Explain the principle and process involved in Volhard's method.
- Q4. Briefly discuss about theories of acid base indicators used in titrations.
- Q5. Give classification of different types of redox titrations. Explain principles and applications of Iodometry.
- Q6. Write applications of conductometry. Explain conductometric titration curves of strong acid versus strong base.

Section – C

(10 marks each)

- Q7. What are different sources and types of errors? Describe methods of minimizing errors.
- Q8. What are principles and steps involved in gravimetric analysis? Give the principle involved in Barium Sulphate estimation.
- Q9. Give classification of various types of electrodes used in potentiometric titrations. Explain the construction and working of standard hydrogen electrode.