

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END-SEMESTER EXAMINATION)**

CLASS: BPHARM
BRANCH: PHARMACY

SEMESTER: I
SESSION: MO/2019

SUBJECT: BP102T: PHARMACEUTICAL ANALYSIS-I

TIME: 3.00 Hours

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
 2. Before attempting the question paper, be sure that you have got the correct question paper.
 3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
 4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.
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PART-I

Objective type questions (Instruction: Answer all questions)

Q1. (10 x 2 = 20 Marks)

- A. Define 'Accuracy' and 'Precision' with examples.
- B. Name five Primary and Secondary standard substances with their chemical formula.
- C. How will you prepare 100 ml 0.5 (N) Oxalic acid solution?
- D. Write down the reactions involved in titration of Sodium thiosulphate with Pot. Dichromate.
- E. Differentiate between Oxidation and Reduction.
- F. What are Adsorption indicators?
- G. Define Standard solution and the methods of expression.
- H. Name the common impurities found in Medicinal preparations.
- I. Discuss Levelling solvents in Non aqueous titrations.
- J. How will you prepare 100 ml 0.1 (N) Benzoic acid solutions?

PART-II

Short Answers

(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 Marks)

- Q2. How will you prepare and standardize Ammonium thiocyanate solution?
- Q3. Describe the determination of NaCl by Volhard's method.
- Q4. Discuss the factors affecting the choice of analytical methods.
- Q5. Name three weakly acidic substances and suitable titrant(s) for their estimation.
- Q6. Enumerate pM indicators employed in Complexometry.
- Q7. What is Potentiometric titration?
- Q8. Differentiate between Polarography and Potentiometry.
- Q9. Explain the salient features of Diazotization titration
- Q10. Name and draw the structures of five Visual indicators employed in Volumetric analysis.

PART-III

Long Answers

(Instruction: Answer two out of three questions)

(2 x 10 = 20 marks)

- Q11. Discuss- Gravimetric analysis of Pharmaceutical substances with examples.
- Q12. Explain the theory of Indicators citing a few examples.
- Q13. Define Conductometric analysis. Discuss the titration of strong acid with strong base