

S.Y.B.PHARM. SEMESTER-III (CBCS - 2015 COURSE) :
SUMMER - 2018

SUBJECT : PHARMACEUTICAL ANALYSIS-I

Day : **Friday** **S-2018-3917** Time : **02.00 PM TO 05.00 PM**
Date : **27/04/2018** Max. Marks: 60

N.B.:

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

- Q.1** Attempt any **FIVE** of the following: **(10)**
- a) Define and classify errors.
 - b) How will you prepare and standardize 500 ml of 0.25 N HCl solution and 0.1 N perchloric acid solution.
 - c) Write chemical reaction, principle involved in assay of Norfloxacin and Sodium bicarbonate.
 - d) Why glycerine is added in assay of boric acid.
 - e) Write calibration of a burette.
 - f) Write requirements of a primary standard solution.
- Q.2**
- a) Derive an equation for dissociation constant of a weak base. Give the chemical reaction and principle involved in assay of aspirin. **(07)**
 - b) Write about buffering index. **(03)**
- Q.3**
- a) Explain in detail determination of weak base by non-aqueous titration. Give the reaction principle and assay procedure of sodium acetate. **(07)**
 - b) Give the equivalent weights of : **(03)**
 NaHCO_3 , H_2SO_4 , NaOH , Na_2CO_3 .
[Given H = 1, Na = 23, S = 32, O = 16, C = 12].
- Q.4** Write short notes on any **TWO** of the following: **(10)**
- a) Theories of Acid base indicators
 - b) Hydrolysis of salt
 - c) Non aqueous titrations application.

SECTION-II

- Q.5** Attempt any **FIVE** of the following: **(10)**
- a) How ferroin acts as redox indicator.
 - b) What is chelation and co-ordination number?
 - c) Why masking and demasking agents are used.
 - d) How to prepare and standardize 0.1 N KMnO_4 and 0.05 N Disodium EDTA solution.
 - e) Why nitrobenzene or dibutyl phthalate is added during Volhard's method.
 - f) Write chemical reaction principle and assay procedure involved in Ascorbic acid and Sodium chloride.
- Q.6**
- a) What are complexes and chelates? Explain stability and factors influencing a complex. **(07)**
 - b) Compare between Mohr's and Volhard's method. **(03)**
- Q.7**
- a) Explain ceriometric type of titrations. **(07)**
 - b) Give chemical reaction, principle and assay procedure for Calcium gluconate. **(03)**
- Q.8** Write short notes on any **TWO** of the following: **(10)**
- a) pM Indicators
 - b) Fajan's method
 - c) Permanganate titrations