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16375(D) - 0 DEC 2016

B. Pharmacy 3rd Semester Examination

Pharmaceutical Analysis-I (CBS)

BP-306

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Section E is compulsory. Attempt five questions in all selecting one question from each of sections A, B, C and D, and all subparts of question in Section E.

SECTION - A

- (a) Define error. Discuss different types of errors. How can these be minimised? (8)
(b) Differentiate between qualitative and quantitative analysis. (4)
- What is a significant figure? Discuss various rules for retaining significant digits in multiplications and additions. (12)

SECTION - B

- (a) Write a note on relative strengths of acids and bases. (6)
(b) What is Law of mass action? Discuss its importance in volumetric analysis. (6)
- (a) What is buffer? Discuss its mechanism of action. Derive the expression to calculate pH of a buffer. (6)
(b) Discuss ionic theory of indicators. (6)

SECTION - C

- Write a note on
(a) Permanganate titration. (8)

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- (b) Sodium 2,6-dichlorophenol indophenol titration. (4)
- (a) Discuss various factors affecting solubility of precipitates. (6)
(b) Write an account on Mohr's method. (6)

SECTION - D

- (a) Calculate equivalent weights of KMnO_4 and KIO_3 in acidic medium. (6)
(b) Write an account on methods to find end point in redox titration. (6)
- (a) Write the principle and method for gravimetric determination of aluminium as aluminium oxide. (6)
(b) Write a note on organic precipitants. (6)

SECTION - E

- (a) Define precision.
(b) Why an aqueous solution of sodium acetate is alkaline?
(c) What is a mixed indicator?
(d) What is the importance of common ion effect in gravimetry?
(e) Name the reagent used in titration of amino acids.
(f) What is formal potential?
(g) Why nitrobenzene is used in Vohlard's method?
(h) Name two indicators used in Fajan's method.
(i) What is digestion in gravimetry?
(j) What is difference between drying and ignition?
(k) Write the balance chemical equation between $\text{Ce}(\text{SO}_4)_2$ and FeSO_4 .
(l) Why starch is not used in KIO_3 titration in acidic medium?
(1×12=12)