Code No. 8040/S

Pharmacy,Hyderabad

FACULTY OF PHARMACY

B. Pharmacy II Year I – Semester (Suppl.) Examination, April 2015

Subject: Pharmaceutical Analysis – I (Chemical Analysis)

Time: 3 Hours   **Max.Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) i) What is a primary standard? Explain briefly giving examples.   (6)
       ii) Explain accuracy, precision, error and linearity with examples.   (8)
                                        OR
   (b) i) What is calibration? Why calibration of glassware is necessary? How do you
           calibrate a burette?   (7)
       ii) Explain about methods of expressing concentration.   (7)

2 (a) i) Explain about different theories of acid and base.   (6)
       ii) Write a note on common ion effect.   (4)
       iii) Calculate the pH of 0.05 M solution of sodium acetate.
            (The dissociation constant of acetic acid is 1.8×10^{-5}).   (4)
                                        OR
   (b) i) Discuss the theorys of neutralization indicators.   (7)
       ii) Define a buffer by giving examples. How does a buffer resist change in pH? (7)

3 (a) i) Describe the various steps involved in gravimetric analysis.   (10)
       ii) How do you prepare and standardize 0.1 N $KMnO_4$ solution.   (4)
                                        OR
   (b) i) Explain Mohr's method for determination of chlorides.   (7)
       ii) What is oxidation – reduction potential? How it is determined in a redox
            system?   (7)

4 (a) i) Write the principle and procedure involved in assay of calcium gluconate. (6)
       ii) Explain the principle, procedure in iodometric titrations.   (8)
                                        OR
   (b) i) Explain theory and applications of non-aqueous titrations .   (7)
       ii) Write a note on masking and demasking agents.   (7)

5 (a) i) Define the terms:
            (A) Mole   (B) Empirical formula   (C) Molecular formula (D) Theoretical yield   (6)
       ii) Calculate the percentage composition of elements in $K_2Cr_2O_7$ [K=39, Cr=52,
            0=16].   (8)
                                        OR
   (b) i) How many moles are present in 53 gm of sodium carbonate and
            60 grams of sodium hydroxide.   (6)
       ii) Calculate the percentage composition of the elements in $Na_2S_2O_3$
            [Na=23, S=32, 0=16].   (8)

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