UG Even Semester (CBCS) Exam., May—2017

PHARMACEUTICAL SCIENCES

(4th Semester)

Course No. : BPH–407 (C)

(Pharmaceutical Analysis—II)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Define redox titration. Discuss in detail about the theory of redox titration. Write a note on redox indicator. 3+7+5=15

2. Explain the term iodometry and iodimetry. What are the errors occurred in iodometric titration and how can the errors be minimized? Write a note on detection of end point in iodometric titration. (4+4)+4+3=15

UNIT—II

3. Write down the basic principle of diazotization titration. Write a note on Kjeldahl's method of nitrogen estimation. How will you prepare and standardize Karl Fisher reagent? 4+5+6=15

4. Define the term potentiometry. Write down the basic principle and advantages of potentiometric method of titration. How will you detect end point of a potentiometric titration? 3+(5+4)+3=15

UNIT—III

5. Define the term conductometry. Write down the principle and advantages of conductometric titration. Briefly discuss the titration curve of the following conductometric titrations : 2+(3+2)+4+4=15

(a) Strong acid with weak base

(b) Weak acid with strong base

6. Define coulometry. Discuss the basic principles of coulometric titration using suitable examples. Discuss in detail about the instrumentation and general procedure of coulorimetric titration at constant current using proper diagram. 2+3+(6+4)=15

UNIT—IV

7. Discuss in detail about the instrumentation of nephelometry and turbidimetry. Write a note on the application of both the techniques. 10+5=15

8. What are the basic differences between polarography and amperometry? Discuss in detail about the apparatus used for amperometric titration. Write its advantages and disadvantages. 4+7+4=15

UNIT—V

9. Discuss in detail about the theory of electrophoresis. Write a note on the instrumentation for capillary electrophoresis. 7+8=15

10. Discuss in detail about the principle and procedure involved in radio-immunoassay. Write its application. 4+7+4=15

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