

[Time: 3 Hours]

[Max. Marks: 75]

**Advanced Pharmaceutical Analysis****Q.P. CODE: 5112**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

**LONG ESSAY (Answer any Three)****3 X 10 = 30 Marks**

1. Explain the theory of redox titrations. Add a note on iodimetry and iodometry.
2. Write the principle and applications for analysis of any one drug using the following reagent a) Paradimethyl-amino cinnamaldehyde [PDAC] b) 2, 6- Dichloroquinone chlorimide.
3. How will you quantitatively determine the drugs containing following functional group a) Carboxyl b) Ester?
4. Briefly describe the principle and procedure involved in the bioassay for tetanus antitoxin.

**SHORT ESSAY (Answer any Nine)****9 X 5 = 45 Marks**

5. Write the principle and reaction for the assay of sodium benzoate by nonaqueous titration.
6. How calcium is quantitatively determined?
7. Write the principle involved in the analysis of drug using Bratton-Marshall reagent.
8. Describe bioassay of Oxytocin.
9. Define and classify residual impurities with examples.
10. Write brief account on stability studies.
11. Write short notes on Antivenom.
12. Write the principle and procedure involved in quantitative estimation of drug containing ester group.
13. Explain complexometric titrations with an example.
14. Describe the applications of 3, 5- Dinitro salicylic acid [DNSA] in drug analysis.

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