



First Year M. Pharm Degree Examination – MAY 2016

Time: Three Hours Max. Marks: 100 Marks

## CHEMICAL & BIOLOGICAL EVALUATION

(Revised Scheme 4)

Q.P. CODE: 9360

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

## LONG ESSAYS (Answer any Two)

2 x 20 = 40 Marks

- Explain in detail about GLP and WHO certification for export of pharmaceuticals.
- a) Explain calibration of UV-Visible Spectrophotometer and HPLC.
  - b) Discuss Solid phase micro extraction and biological method validation as per ICH guidelines.
    (10+10)
- 3 Explain microbiological validation with examples and sterility testing methods.
  - b) Discuss the concept of enzyme immuno assays with example.

(10+10)

## SHORT ESSAYS (Answer any FIVE)

5 x 10 = 50 Marks

- Discuss drug rules of Schedule M and reprocessing and salvaging of returned goods.
- Write in detail principle and procedure involved in the biological assay of streptokinase and tuberculin purified protein derivative.
- Discuss Q<sub>3</sub>B and Q<sub>3</sub>C ICH quideline.
- Give source, chemistry and properties of endotoxins and explain official pyrogen testing methods.
- 8. Explain cleaning and personnel validation.
- 9. Write on development of drug information profile and microbial assays of antibiotics.

SHORT NOTES 2 x 5 = 10 Marks

- Write a note on concepts of Laboratory Information Management System (LIMS).
- 11. Write a note on test of antimicrobial preservatives.

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