

**M. SC. (ANALYTICAL CHEMISTRY) SEM-III (CHOICE BASED  
CREDIT & GRADE SYSTEM) : SUMMER - 2018**

**SUBJECT: ANALYSIS OF PHARMACEUTICALS**

Day : **Saturday**  
Date : **28/04/2018**

**S-2018-0877**

Time: **03.00 PM TO 06.00 PM**  
Max. Marks: 60.

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Both the sections should be written in **SEPARATE** answer books.
  - 3) Figures to the **RIGHT** indicate full marks.
  - 4) Draw neat and labelled diagrams **WHEREVER** necessary.
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**SECTION-I**

**Q.1** Answer any **THREE** of the following: **(15)**

- a) Define drugs and cosmetics.
- b) Give in brief history of pharmacopoeia of India.
- c) Explain schedule C and C<sub>1</sub> with example.
- d) Write the qualifications of government analyst.
- e) Give principle involved in assay of ferrous sulphate.

**Q.2** Solve any **THREE** of the following: **(15)**

- a) Write functions of central drug laboratories.
- b) Explain principle and apparatus for limit test of arsenic.
- c) What are the qualifications of drug inspector?
- d) What is limit test? Comment on principle involved in limit test for sulphate.
- e) Write short note on Test for Purity.

**SECTION-II**

**Q.3** Answer any **THREE** of the following: **(15)**

- a) Discuss the various pathways of drug degradation.
- b) What are emulsions? Write the identification tests for emulsion.
- c) Explain teratogenicity and mutagenicity with example.
- d) Write general requirements for parenteral products.
- e) What are powders? Write merits and demerits of powder as dosage form.

**Q.4** Solve any **THREE** of the following: **(15)**

- a) Define and classify various pharmaceutical additives.
- b) What are suspensions? Differentiate between flocculated and non-flocculated suspension.
- c) Define expiry date. How will you calculate self-life of drugs?
- d) Discuss *in vivo* and *in vitro* test for pyrogens.
- e) What is dose and dosage form? Classify various dosage forms.

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