

M. PHARM. SEM-II (CHOICE BASED CREDIT & GRADE SYSTEM)

: SUMMER - 2018

SUBJECT : ELECTIVE – III : PHARMACEUTICAL PLANT DESIGN AND OPERATIONS

Day : **Tuesday**
Date : **10/07/2018**

S-2018-4016

Time : **10.00 AM to 01.00 PM**
Max. Marks : 60

N.B.

- 1) Attempt **ANY THREE** questions from each section.
 - 2) All questions carry **EQUAL** marks.
 - 3) Answers to both the sections should be written in the **SEPARATE** answerbooks.
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SECTION – I

- Q.1** Elaborate on Regulatory requirements for Pharmaceutical facility for Regulated markets.
- Q.2** Explain with examples the role of Project Management in creating a World Class Pharmaceutical Facility.
- Q.3** Draw with details the route charts for Liquid Oral Manufacturing and Packaging facility (Large Scale) **OR** Sterile (Dry Powders) Products facility (Large Scale) for advanced markets.
- Q.4** Write short notes on **ANY TWO** of the following.
- a) Factories Act
 - b) Automatic Storage systems for Warehouse
 - c) Unit cubical for Weighing of Raw Materials
 - d) Days storage layout for large scale Ointments products

SECTION – II

- Q.5** Elaborate on requirements of effluent treatment plant.
- Q.6** Draw with the help of sketches various support systems for Pharmaceutical Plant.
- Q.7** Elaborate on Personnel and HRD Department.
- Q.8** Write short notes on **ANY TWO** of the following.
- a) Pharmaceutical ware house
 - b) Operation of QA/QC
 - c) Engineering stores
 - d) Production Planning Control

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