

M. PHARM (PHARMACEUTICAL CHEMISTRY) SEM – II (CBCS – 2019 COURSE):

Winter-2021

SUBJECT : PHARMACEUTICAL PROCESS CHEMISTRY

Day : Thursday

Time : 02:00 PM-05:00 PM

Date : 02-12-2021

W-20795-2021

Max. Marks : 75

N.B :

- 1) **Q. No. 1 and Q. No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both sections should be written in **SEPARATE** answer books.

SECTION - I

- Q.1** Explain fermentation process for production of antibiotics. (08)
- Q.2** a) Explain one case study on industrial reduction process. (08)
b) Write a note on effluents and its management system. (07)
- Q.3** Classify and explain in detail different oxidizing agents. (15)
- Q.4** Write short notes on **ANY TWO** of the following: (15)
a) Kinetics and mechanism of aromatic nitration.
b) Hydrogenolysis
c) Case study on halogenation process

SECTION - II

- Q.5** Discuss about unit process and manufacturing technology of pharmaceuticals. (07)
- Q.6** Give an account of scale up techniques and flow charts in API manufacturing with suitable examples. (15)
- Q.7** Elaborate the process of Crystallization. What do you mean by Polymorphs? Discuss factors affecting Crystallization. (15)
- Q.8** Write short notes on **ANY TWO** of the following: (15)
a) Labelling of hazardous chemicals
b) Types of fire hazards
c) Centrifugal filtration

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