

BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)

B. Pharm. Sem-III :SUMMER-2022

SUBJECT : PHARMACEUTICAL ENGINEERING

Day : Tuesday

Time : 02:00 PM-05:00 PM

Date : 19-07-2022

S-20669-2022

Max. Marks : 75

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SEPARATE** answer book.

SECTION – I

Q.1 Answer the following : **(20)**

- i) What are turbulent flow and its characteristics?
- ii) Classify the size reduction equipments with examples.
- iii) Define the sieving time and sieving aid.
- iv) Explain the Fourier law.
- v) Draw the diagram of climbing film evaporator.
- vi) Briefly write about the principle of simple distillation.
- vii) What are the objectives of drying?
- viii) Give applications of mixing in pharmacy.
- ix) Classify the types of filtration.
- x) What is corrosion? Classify them.

Q.2 Answer **ANY TWO** from the following: **(20)**

- i) Define and classify the various types of heat exchangers. Explain in detail plate type heat exchangers.
- ii) What is fractional distillation? Discuss its principle.
- iii) Discuss principle, construction, working, significance and applications of planetary mixture.

SECTION – II

Q.3 Answer **ANY SEVEN** of the following : **(35)**

- i) Write construction and working of Venturi meter and Pitot tube.
- ii) Write the principle, construction, working, uses, merits and demerits of hammer mill.
- iii) What are the applications of moisture content determination?
- iv) Write the principle, construction, working, uses, merits and demerits of Fluidized bed dryer.
- v) Briefly explain about the types of corrosion.
- vi) Write a note on Meta filter.
- vii) Comment on perforated basket centrifuge.
- viii) Elaborate on construction and working of multiple effect evaporators.
- ix) Explain the properties of ideal filter medium with suitable example.
