

This question paper contains 2 printed pages]

NA—177—2023

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

INDUSTRIAL CHEMISTRY

Paper-XII

(Unit Processes in Organic Synthesis)

(Saturday, 23-12-2023)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (1) Attempt *all* questions.

(2) Use of scientific calculator is allowed.

1. Explain polymerization process and explain synthesis of low pressure polyethylene process with neat labelled diagram. 15

Or

(a) Explain synthesis of Bakelite with neat labelled diagram. 8

(b) Explain synthesis of Nylon 6, Nylon 66 with suitable reaction mechanism. 7

2. Explain nitration process and explain kinetics and mechanism of aromatic nitration. 15

Or

(a) Explain Iodination Reactions. 8

(b) Explain N-Nitrocompounds and nitrate esters. 7

P.T.O.

WT

(2)

NA—177—2023

3. Write short notes on (any *two*) :

10

- (a) D.V.S. calculation
- (b) Bulk polymerization
- (c) Solution polymerization
- (d) Atactic polymer.

NA—177—2023

2