BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI (MID SEMESTER EXAMINATION SP/2024)

CLASS: B.TECH. SEMESTER: VI BRANCH: CHEMICAL ENGG. SESSION: SP/2024

SUBJECT: CL355 PETROCHEMICALS TECHNOLOGY

TIME: 02 Hours FULL MARKS: 25

INSTRUCTIONS:

- 1. The question paper contains 5 questions each of 5 marks and total 25 marks.
- 2. Attempt all questions.
- 3. The missing data, if any, may be assumed suitably.
- 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

CO BL Q.1(a) What was the first chemical made from petroleum product? What was first [2] 1 public sector petrochemical plant in India? Q.1(b) What is the significance of water removal from NG? Briefly describe the Selexol [3] 1,2 process with flow diagram. Q.2(a) How is butadiene separated from C4 complex in naphtha cracking unit? 2 [2] Q.2(b) Briefly explain the gas stream processing in naphtha cracking unit. [3] 2 Q.3(a) Explain the UOP integrated aromatic complex separation process with [10] 2 2 appropriate process flow diagram.

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Q.4(a) Briefly explain UOP Tatoray process with appropriate process flow diagram.