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Roll No

CM-603 (GS)

B.E. VI Semester Examination, June 2020

Grading System (GS)

Mass Transfer - II

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. What are adsorption isotherms? What informations does these isotherms provide? Explain few isotherms giving mathematical expressions and graphs.
2. Show that for air-water system, wet-bulb and adiabatic saturation temperature are equal.
3. The flow of carbon that should be fed to a counter current moving bed column with a juice flow of 1000 kg/h, if it operates with a carbon flow that is double the minimum, and it is desired to obtain juice with an A_{420} value not higher than 0.2.
4. Explain principle and working of cooling tower with neat diagram.
5. Explain Psychometric ratio J_H and J_D factor and Lewis number.
6. Formulate the relation used in a multistage cross current extraction with partially miscible solvent involving three stages.

OR

Discuss spray and packed columns used for extraction in detail.

7. Explain the Ternary diagram.
Theoretical Breakthrough Curve.
8. Write a short note on:
 - i) Mccabe - Thiele method
 - ii) Ponchon - Savarit method
 - iii) Mier's Supersaturation Theory
