Total No. of Question : [4]

Registration No. : | | | | | | | | |

Programme Name : Bachelor of Chemical Engineering
Regular B.Tech.Final Year (A.Y.2023-24) ESE Sem. VII Nov.2023
VII SEMESTER (2020 BATCH)
201CHL 402-Chemical Process Design(TH)

Duration : [02:00 PM - 04:00 PM]
Date : 23 Nov, 2023
Day : Thursday

Marks : 50

Instructions :
1.Read questions carefully.

(Q1) **All Questions are compulsory** [20.0]

    (1.1) Explain types of fouling [6.0]

        CO :- C402.1
        Blooms Taxonomy :- Understand

    (1.2) Explain instruments in P&ID diagrams [7.0]

        CO :- C402.2
        Blooms Taxonomy :- Apply

    (1.3) Describe process design of packed bed cooling tower [7.0]

        CO :- C402.3
        Blooms Taxonomy :- Apply

(Q2) **Attempt any two out of three questions** [10.0]

    (2.1) Describe Lewis-Sorel method [5.0]

        CO :- C402.4
        Blooms Taxonomy :- Apply

    (2.2) Explain types of trays in detail [5.0]

        CO :- C402.4
        Blooms Taxonomy :- Apply

    (2.3) Explaine finite difference method for determing number of trays in fractional distillation column [5.0]

        CO :- C402.4
        Blooms Taxonomy :- Apply

(Q3) Attempt any two out of three questions   [10.0]

     (3.1) Explain performance equation of plug flow reactor   [5.0]

        CO :- C402.5
        Blooms Taxonomy :- Apply

     (3.2) Differentiate the CSTR and PFR   [5.0]

        CO :- C402.5
        Blooms Taxonomy :- Apply

     (3.3) Describe the mechanism of crystallization process   [5.0]

        CO :- C402.5
        Blooms Taxonomy :- Apply

(Q4) Attempt any two out of three questions   [10.0]

     (4.1) Explain size selection of piping   [5.0]

        CO :- C402.6
        Blooms Taxonomy :- Understand

     (4.2) Describe thermal stresses in piping layout design   [5.0]

        CO :- C402.6
        Blooms Taxonomy :- Understand

     (4.3) Explain pipe thread sizes for thermowells   [5.0]

        CO :- C402.6
        Blooms Taxonomy :- Understand

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