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Question Paper Code: 92905

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Second Semester

Chemical Engineering

19UCH205 - INTRODUCTION TO CHEMICAL ENGINEERING

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 2 = 10 Marks)

Answer Any ten of the following Questions

1. What is the difference between chemical engineers and other engineers? CO1 U
2. Write some famous chemical engineering personalities. CO1U
3. Calculate the molecular weight for CuSO_4 CO2 App
4. What is dimensional analysis? CO2 R
5. Differentiate unit operation & unit process. CO3 Ana
6. Examine what is called as PFD in Chemical engineering. CO3 R
7. Define the term simulation. CO4 U
8. Mention some chemical engineering design software's you know. CO4 R
9. Write some examples of the concept paradigm shift. CO5 R
10. Differentiate keys and concepts in a paradigm shift. CO5 Ana

PART - B (5 X 16=80 Marks)

11. (a) Discuss in detail about the greatest achievements of chemical engineering. CO1 R
- Or
- (b) Explain briefly about the historical overview of chemical engineering CO1 R

- 12 (a) Analyse the two methods of dimensional analysis in chemical engineering CO2 Ana
Or
(b) Discuss briefly about the three modes of heat transfer and its governing laws CO2 U
- 13 (a) Discuss in detail about different types of diffusion in mass transfer. CO3 U
Or
(b) Describe the manufacturing process of sulfuric acid by contact process with suitable flow diagrams. CO3 U
- 14 (a) Differentiate traditional and modern chemical engineering briefly. CO4 Ana
Or
(b) Describe the term modeling and simulation for a chemical process CO4 U
- 15 (a) Apply the paradigm shift concepts in chemical engineering and the modern tool usage in the production section of a process industry. CO5 App
Or
(b) Discuss in detail about the paradigm shifts in chemical engineering CO5 U