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Question Paper Code: 53901

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Chemical Engineering

15UCH301 - INTRODUCTION TO CHEMICAL ENGINEERING

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

- Who is regarded as Father of Modern Chemistry CO1- R
(a) Rutherford (b) Einstein (c) Lavoisier (d) C.V.Raman
- With increase in temperature, viscosity of a liquid CO1- R
(a) Decreases (b) Increases (c) Remains constant (d) May increase or Decrease
- The gas constant (R) is equal to the _____ of two specific heats. CO2- U
(a) Product (b) Difference (c) Sum (d) Ratio
- The substance which alters the rate of chemical reaction and remains unchanged is CO2- U
(a) Reactant (b) Product (c) Catalyst (d) Inhibitor
- Statement 1: Evaporation is considered a mass and heat transfer operation. CO3- U
Statement 2: After evaporation, solids are left behind.
(a) True, False (b) True, True (c) False, False (d) False, True
- Sulfuric acid is manufactured with help of CO3- R
(a) Haber process (b) Contact Process (c) Complex reaction (d) Redox Reaction
- The software CFD stands for CO4- R
(a) Computational Fluid Dynamics (b) Chemical Fluid Design
(c) Chemical Fluid Dynamics (d) None of the above

8. The science which deals with the path of the food CO4- R
(a) Food Science (b) Nutrition (c) Food Processing (d) Food Technology
9. Methanol decomposes to form hydrogen and which is the other product? CO5- R
(a) Carbon monoxide (b) Carbondioxide (c) Carbon (d) All of the above
10. Oxidation of natural gas produce what? CO5- R
(a) Formaldehyde (b) Acetaldehyde (c) Methanol (d) All of the above

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Discuss the role of chemical engineers in process industries . CO1- U (8)
12. What are the components of chemical engineering and Briefly explain CO2- U (8)
each component with suitable examples.
13. Explain in detail about the manufacture of sulphuric acid. CO3- U (8)
14. Elaborate the Role of Computer and Software in Chemical CO4- U (8)
Engineering.
15. Elaborate in detail about Paradigm Shift in Chemical Engineering CO5- U (8)