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QP CODE: 24020233



Reg No	:	
Name	:	

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, MAY 2024

Second Semester

B.Sc Chemistry Model II Industrial Chemistry

Vocational Course - CH2VOT02 - CHEMICAL INDUSTRIES AND INDUSTRIAL ASPECTS OF PHYSICAL CHEMISTRY

2017 ADMISSION ONWARDS

0228E99A

Time: 3 Hours

Max. Marks : 60

Part A

Answer any **ten** questions.

Each question carries 1 mark.

- 1. What happens when a sol is filtered through an ordinary filter paper?
- 2. What happens when sodium chloride is added to ferric hydroxide solutions?
- 3. What is CMC?
- 4. Name the catalysts used in a) Haber's process for synthesis of NH3 b) Contact process for synthesis of H2SO4.
- 5. Give any two physical properties of water.
- 6. Name anyone coagulant used to remove the turbidity of water.
- 7. Name a polymer processing method used to manufacture hollow articles.
- 8. Give two examples of vulcanizing agent.
- 9. What is Aniline Point?
- 10. What are the raw materials used for manufacture of Cement?
- 11. What is the purpose of Mno2 in dry cell?
- 12. What is the working principle of solar cells?

 $(10 \times 1 = 10)$

Part B

Answer any **six** questions.

Each question carries **5** marks.





- 13. Answer the following question
 - 1. Why is alum added to remove impurities from water?
 - 2. Smoke coming out from the chimneys of different factories is led to charged metallic plate
- 14. Explain the following terms with suitable examples:
 - 1. Gel
 - 2. Aerosol
- 15. Describe some characteristics of enzyme catalysis.
- 16. Describe two types of Lime- soda process.
- 17. Distinguish between thermoplastics and thermosetting plastics. Give some common examples of them.
- 18. What is vulcanization? Give its advantages and disadvantages.
- 19. Define the term 'synthetic lubricants'. Discuss the properties of synthetic lubricants.
- 20. What are the chemical reactions occurring in the clinkering zone of cement manufacturing?
- 21. List the advantages and disadvantages of a Lead Acid Battery.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

- 22. Describe any two methods for determination of molecular weight of macromolecules.
- 23. What are emulsions? Describe two types of emulsion with suitable example. Discuss the methods used in finding the type of an emulsion.
- 24. Elaborate on vulcanization, vulcanization and advantages of vulcanization.
- 25. Write in detail the characteristics of a battery. How does these charateristics used in the selection of a battery for a specific purpose?

(2×10=20)