



Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
(Autonomous)

End Semester Examination: OCT / NOV 2024

Faculty: Science and Technology

Program: B.Sc.General

Semester: V

SET: A

Program (Specific): Chemistry

Course Type:DSEC-II

Class: T.Y.B.Sc.

Max.Marks: 35

Name of the Course: Industrial Chemistry

Course Code: 24-CH-505

Time: 2Hr

Paper: 24-CH-505

Instructions to the candidate:

- 1) There are 4 sections in the question paper. Write each section on separate page.
- 2) All Sections are compulsory.
- 3) Figures to the right indicate full marks
- 4) Draw a well labelled diagram wherever necessary.

SECTION: A

Q1) Multiple Choice Questions

[1 X 5 = 5M]

1)Intellectual property includes.....

- a) Q.C. b) Q.A. c) TM d) HR

2)Ostwald's process is used in the manufacture of

- a) NH₃ b) HCl c) HNO₃ d) H₂SO₄

3)In the carbonation processgas is bubbled through the juice.

- a) CO b) CO₂ c) SO₂ d)N₂

4)Detergent molecules can aggregate in water into spherical clusters called.....

- a) emulsion b) surfactant c) micelle d)hydrotropes

5)An isolated functional group capable of absorbing radiation is known as.....

- a) auxochrome b) chromogen c) chromophore d) xanthochrome

Q2) Very short answer questions (Attempt any 4/6)

[1 X 4 = 4M]

i) Define the term process control .

ii) Write the balanced reaction for manufacture of ammonia.

iii)What is molasses ?

iv)What are soaps ?

v)Is every coloured substance a dye ?

vi)Define fermentation.

SECTION: B

Q3) Short answer questions (Attempt any 4/6)

[2 X 4 = 8 M]

- I) Explain the term Quality Control.
- II) Explain the term hydrophobic and hydrophilic.
- III) What are uses of bagasse ?
- IV) What is emulsion ?
- V) Write any two uses of sulphuric acid
- VI) What are functions of HR ?

SECTION: C

Q4) Short answer questions (Attempt any 4/6)

[2 X 4 = 8M]

- I) Write short note on copy right.
- II) Write any two raw materials for manufacture of Nitric acid.
- III) What is sugar boiling ?
- IV) What are qualities of good dye ?
- V) Explain the term 'power alcohol'.
- VI) Explain causes of accident in chemical industry.

SECTION: D

Q5) Long answer type Questions (Attempt any 2/4)

[5 X 2 = 10 M]

- I) Differentiate between batch and continuous process.
- II) Explain the manufacture of ammonia by modified Haber-Bosch process.
- III) What is fermentation ? Explain the factors favourable for fermentation.
- IV) Write a brief note on 'washing action of soaps and detergents'

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