

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2022
(Second Semester)

Branch – CHEMISTRY
INDUSTRIAL CHEMISTRY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Glass is a mixture of
(i) Non-metallic silicates (ii) Metallic silicates
(iii) Metallic acetates (iv) Non-metallic acetates
- 2 A natural insecticide obtained from plants is
(i) Lead arsenate (ii) Paris Green
(iii) Nicotine (iv) All these
- 3 which of the following is drier in paints
(i) Silver (ii) lead
(iii) Zinc Oxide (iv) cobalt
- 4 In paper manufacturing, stock (fibrous material) is prepared by which of the following process?
(i) extraction and expelling (ii) beating and extraction
(iii) extraction and refining (iv) beating and refining
- 5 Detergent is
(i) Sodium stearate (ii) Sodium alkyl sulphonate
(iii) Potassium butyrate (iv) Sodium oleate

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Bring out the importance of annealing and finishing in glass manufacturing.
OR
b Classify the types of Portland cement. Give their specific application.
- 7 a Analyze the role of nutrient functions on the fertility of the soil.
OR
b sketch on the action and advantages of natural plant insecticide using a specific example
- 8 a Bring out the constituents and advantages of emulsion paints.
OR
b Explain on cellulose and silicate adhesives.
- 9 a Explain the manufacture of sugar from beet-root.
OR
b Sketch the process of calendaring paper.
- 10 a Outline on the cleansing action of soaps.
OR
b Narrate on the principle groups of synthetic detergents?

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Enumerate on the different special types of glasses.
OR
b Point out the chemistry of setting of cement.
- 12 a with suitable examples, Classify and brief on insecticides according to their mode of action.
OR
b Discuss on the preparation, properties and specific applications of the following fertilizers i) urea , ii) SSP and iii) TSP
- 13 a Discuss on the constituents of paints in detail.
OR
b Define the term 'pigment' Bring out role of the different pigments in producing colour with one suitable example for each category.
- 14 a Brief on the process of manufacture of ethyl alcohol from molasses and wine.
OR
b Analyze the various steps involved in the manufacture of paper.
- 15 a Discuss on the different types of soaps.
OR
b Highlight on i) oxo process, ii) alfol process and iii) Weish process.

Z-Z-Z

END