

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2025**  
(Second Semester)

Branch - CHEMISTRY

**INDUSTRIAL CHEMISTRY**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 × 1 = 10)

Module No	Question No.	Question	K Level	CO
1	1	Choose the example of solid dielectrics among the following. a) Plastic    b) Boron    c) Germanium    d) Iron	K1	CO1
	2	Show the suitable temperature range for using thermal insulator a) 2500° C b) 1150° C c) 3500° C d) 5500° C	K2	CO1
2	3	Show the emulsion paint among the following. a) Water based paint    b) Marine c) Cement    d) Latex	K1	CO2
	4	The role of the pigment is to a) give colour    b) acts as filler c) act as drier    d) act as oxidant	K2	CO2
3	5	Show the ideal temperature for enzymes is a) 40-45 ° C    b) 30-35 ° C c) 60-70 ° C    d) 80-90 ° C	K1	CO3
	6	Name the chemical is used to bleach pulp a) H <sub>2</sub> O b) H <sub>2</sub> O <sub>2</sub> c) H <sub>2</sub> d) O <sub>2</sub>	K2	CO3
4	7	What is the chemical formula of Potassium Hydroxide a) KOH b) NaOH c) KCl d) NaCl	K1	CO4
	8	Soaps which are prepared by using KOH and high grade oil is called a) Soft soap    b) Transparent soap c) Medicated soap    d) Hard soap	K2	CO4
5	9	What is Waste Management ? a) Organization to manage waste disposal b) Schemes to dispose the waste c) Schemes to manage waste d) Schemes to manage and dispose of waste	K1	CO5
	10	Industrial safety officers play a pivotal role in ____ accidents. a) Hydrogenating    b) Oxygenating c) Preventing    d) Manipulating	K2	CO5

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No	Question No.	Question	K Level	CO
1	11.a.	Explain the following with suitable examples (i) Semiconductors and (ii) Super conductors.	K2	CO1
		(OR)		
	11.b.	Explain the thermal characteristics of dielectrics.		
2	12.a.	Analyze the method of manufacture of paints.	K4	CO2
		(OR)		
	12.b.	Write a note on White pigments.		
3	13.a.	Analyze the characteristics of enzymes.	K3	CO3
		(OR)		
	13.b.	Construct the method of manufacture of paper.		
4	14.a.	Develop the hot process for the manufacture of soaps.	K3	CO4
		(OR)		
	14.b.	Explain the classification of surface active agents.		
5	15.a.	Simplify the treatment of important chemical wastes from paper.	K4	CO5
		(OR)		
	15.b.	Critique the responsibilities of Safety officer.		

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No	Question No.	Question	K Level	CO
1	16	Analyze the important significances of cryogenic conductors and chemotronics.	K4	CO1
2	17	Examine the various constituents of paints.	K4	CO2
3	18	Elaborate the manufacture of sugar.	K4	CO3
4	19	Examine the cleansing action of soaps with suitable examples.	K4	CO4
5	20	i) Analyze the importance of safety committee. ii) Discuss the treatment of important chemical waste from soap and sugar industries. (5+5)	K4	CO5

Z-Z-Z

END