Lesson plan of 5th sem

(glass technology)

sl NO.	TOPIC	REFERANCE	ASSIGMENT	COMMENT
1. 1	.Define Glass & Glassy state	TB.RB	Yes	One period
2.	Historical background of Glass	TB	No	Two period
3.	Glass Industries in India and the present status	TB	No	One period
4.	Describe the major ingredients for glass making	TB,RB	Yes	One period
5.	Describe the minor ingredients used for glass making	TB,RB	yes	One period
6.	Define Cullet and its use in glass making	TB	Yes	One period
7.	Describe selection of glass composition for various types of glasses	TB,RB	No	One period
8.	Properties of glass sand for glass making.	TB	No	One period
9.	Impurities in glass raw materials and their influence in glass making.	TB	Yes	One period
10.	Calculation of batch of raw materials for making glass	TB	Yes	Three period
11.	Process of glass formation	TB,RB	Yes	One period
12.	Refining of glass	TB	Yes	One period
13.	De-colorization of glass	TB,RB	Yes	One period
14.	Role of viscosity in glass melting.	TB	No	One period
15.	Glass melting furnaces	TB,RB	yes	One period
16.	Glass Tank Furnace & Glass pot furnace	TB,RB	Yes	One period
17.	De-vitrification of Glass	TB,RB	Yes	One period
18.	Various methods used for making glass products	TB	No	One period

19.	Manufacture of glass by blowing process .	TB,RB	Yes	One period
20.	Float process	TB	Yes	One period
21.	Various moulds for glass making	TB	No	One period
22.	Manufacturing of glass bottle, sheet glass, thermo flask, electric bulb.	TB,RB	Yes	Two period
23.	Manufacturing of fiber glass, glass wool.	TB	Yes	One period
24.	Layout of modern glass plant.	TB,RB	yes	One period
25.	Define Annealing and Toughening of Glass & Aim of annealing.	TB,RB	Yes	One period
26.	Describe the process of annealing in details.	TB	No	One period
27.	Explain tempering of glass by various methods.	TB	yes	One period
28.	State and explain Chemical & mechanical toughening of glass.	TB	yes	One period
29.	Describe the following properties of glass in detail a) Viscosity.	TB	yes	One period
30.	b) Thermal expansion	TB	No	One period
31.	c) Density.	TB	Yes	One period
32.	d) Optical properties.	TB	Yes	One period
33.	e) Chemical durability	TB	No	One period
34.	Testing of defects of glass by visual observation	TB	Yes	One period
35.	Blistering, cords, stones in glass.	TB	Yes	One period
36.	Determination and observation of strain in glass.	TB	No	One period
37.	Measurement of thermal shock resistance of glass	TB,RB	Yes	One period
38.	Testing of viscosity of glass.	TB	Yes	One period

39.	Testing of density of glass.	TB,RB	Yes	One period
40.	Testing of strength of glass.	TB	No	One period
41.	Durability of glass	TB	Yes	One period
42.	Describe the following methods of glass decoration in brief. a) Polishing	TB	No	One period
43.	b) Grinding c) Etching	TB	Yes	One period
44.	d) Sand Blasting e) Engraving	TB	Yes	One period
45.	f) Cutting g) Staining	Tb	yes	One period
46.	h) Enameling	Tb	Yes	One period
47.	Define special glass.	Tb,Rb	Yes	One period
48.	Describe the characteristics and application of the following glasses:- a) Borosilicate glass	TB,RB	No	One period
49.	b) Pyrex glass	Tb	yes	One period
50.	c) Heat resisting glass	Tb	No	One period
51.	d) Coloured glass	TB	No	Half period
52.	e) Ruby glass	TB	No	Half period
53.	f) Laminated glass	TB	Yes	One period

1 Hand book of glass manufacturers Vol I & II F.V Tooley Ogden Publishing co. New York (TB)

2 Modern Glass Practice Samuel R. Scholes CBI Publishing Co. INC (TB)

3 Hand book of Glass BY R. Charan B H U, Banaras (TB)

4 Glass BY Shand Mc Grawhill (TB)

5 CHEMISTRY OF GLASS A . PAUL Ashlee Pub. C (RB)

6.Introduction to glass science and technology by J.E.Shelby (RB)

7.Handbook of ceramic by S.KUMAR (RB)

8. . Engineering Chemistry P.C. Jain and Monica Jain. Dhanpat Rai Publisher(RB)

Classes are taken with 56 periods. one period is for internal test conducted and 03 period is for revision of syllabus.