

G.P Valsad			
Chemical Engineering Department			
Frequently asked interview questions (Technical)			
		University Viva	Company interview
Sr.no	Question	Question Scope (tentative)	
1	What is the concept of pH?	✓	
2	What is the difference between an acid and a base?	✓	
3	What is the difference between a solution and a suspension?	✓	✓
4	What is the difference between an inorganic and an organic compound?	✓	✓
5	What is the difference between an oxidizing agent and a reducing agent?	✓	✓
6	What is the difference between a suspending agent and a dispersing agent?	✓	
7	What is the difference between a surfactant and an emulsifier?	✓	✓
8	What is a buffer solution?	✓	
9	What is the difference between an alkali and an acid?	✓	✓
10	What is the role of biodegradation in environmental sustainability?	✓	✓
11	What is the significance of green chemistry in chemical engineering?	✓	
12	What is the purpose of a sintering furnace in materials processing?		✓
13	What is the concept of viscosity?	✓	✓
14	What is the difference between mass and weight?	✓	✓
15	What is the ideal gas law equation?	✓	
16	What is the concept of molarity?	✓	
17	What is the concept of stoichiometry in chemical reactions?	✓	
18	What is the difference between a generic drug and a branded drug?	✓	✓
19	What is the role of a centrifuge in the pharmaceutical industry?		✓
20	What is a polymer?	✓	

G.P Valsad			
Chemical Engineering Department			
Frequently asked interview questions (Technical)			
		University Viva	Company interview
Sr.no	Question	Question Scope (tentative)	
21	What is the role of fermentation in the production of pharmaceuticals?		✓
22	What is the function of a filter in the pharmaceutical industry?		✓
23	What is the purpose of a solvent in pharmaceutical formulations?		✓
24	What is the function of a tablet press in pharmaceutical manufacturing?		✓
25	What is the role of biotechnology in the production of pharmaceuticals?		✓
26	What is the function of a drying oven in the pharmaceutical industry?	✓	✓
27	What is the significance of Good Manufacturing Practices (GMP) in the pharmaceutical industry?		✓
28	What is the role of quality control in the pharmaceutical industry?		✓
29	What is the function of a coating machine in pharmaceutical manufacturing?		✓
30	What is the role of a solvent recovery system in chemical plants?		✓
31	What is the role of a pharmaceutical excipient (e.g capsule shell) in drug formulations?		✓
32	What is the function of a granulator in pharmaceutical manufacturing?		✓
33	What is the function of a clean room in pharmaceutical manufacturing?		✓
34	What is the difference between a suspension and an emulsion?	✓	✓
35	What is the purpose of a chromatography column in the pharmaceutical industry?		✓
36	What is the function of a wet granulation process in pharmaceutical manufacturing?		✓
37	What is the purpose of a heat exchanger in chemical processes?	✓	✓
38	What is the concept of solubility?	✓	✓
39	What is the difference between a solvent and a solute?	✓	✓

G.P Valsad			
Chemical Engineering Department			
Frequently asked interview questions (Technical)			
		University Viva	Company interview
Sr.no	Question	Question Scope (tentative)	
40	What is the first law of thermodynamics?	✓	✓
41	What is the concept of enthalpy?	✓	✓
42	What is the purpose of a scrubber in chemical plant emissions control?	✓	✓
43	What is the role of a process safety system in chemical plants?	✓	✓
44	What is the purpose of a flare system in petrochemical plants?	✓	✓
45	What is the purpose of a demister in chemical process equipment?		✓
46	What is the purpose of a condenser in chemical processes?	✓	✓
47	What is the purpose of a crystallizer in chemical processes?	✓	✓
48	What are the two sections in rectification column?	✓	✓
49	What is the role of nitrogen fixation in agrochemicals?	✓	
50	What are the primary nutrients required by plants in agriculture?	✓	
51	What is the role of a pesticide in agrochemicals?		✓
52	What is the role of fertilizers in agriculture?	✓	
53	What is the role of an emulsifier in the formulation of agrochemicals?		✓
54	What is the significance of the Haber-Bosch process in chemical engineering?		✓
55	What is the primary raw material for the production of agrochemicals?	✓	
56	What is the role of genetic engineering in agrochemicals?		✓
57	What is the role of crop protection chemicals in agriculture?	✓	
58	What is the purpose of a biocide in agrochemical formulations?	✓	✓

G.P Valsad			
Chemical Engineering Department			
Frequently asked interview questions (Technical)			
Sr.no	Question	University Viva	Company interview
		Question Scope (tentative)	
59	What is the difference between a fungicide and an insecticide?	✓	✓
60	What is the purpose of a biogas plant in agricultural waste management?	✓	
61	What is the difference between a selective herbicide and a non-selective herbicide?	✓	✓
62	What is the significance of biopesticides in agrochemicals?	✓	
63	What is the role of genetic modification in crop improvement?		✓
64	What is a catalyst?	✓	✓
65	What is the purpose of a reactor in the production of chemicals?	✓	✓
66	What is the function of a reactor vessel in chemical plants?	✓	✓
67	What is the purpose of a catalyst in a chemical reaction?		✓
68	What is the difference between an exothermic and an endothermic reaction ?	✓	✓
69	What is the concept of equilibrium in chemical reactions?	✓	✓
70	What is the function of a bioreactor in pharmaceutical production?	✓	✓
71	What is the difference between a reversible and an irreversible reaction?	✓	✓
72	What is the function of a catalyst support in catalytic reactions?	✓	
73	What is the difference between a batch reactor and a continuous reactor?	✓	✓
74	What is the concept of activation energy in chemical reactions?		✓
75	What is the purpose of a pressure vessel in chemical plants?	✓	✓
76	What is the purpose of a distillation column in petrochemical refining?	✓	✓
77	What is the primary feedstock for petrochemicals?	✓	✓
78	What is cracking in petrochemical refining?		✓

G.P Valsad			
Chemical Engineering Department			
Frequently asked interview questions (Technical)			
		University Viva	Company interview
Sr.no	Question	Question Scope (tentative)	
79	What is the purpose of a catalytic converter in petrochemical processes?		✓
80	What is the function of a rectification column in petrochemical refining?		✓
81	What is the difference between an aliphatic and an aromatic compound?	✓	✓
82	What is the significance of feedstock selection in petrochemical processes?	✓	✓
83	What is the role of process optimization in chemical engineering?	✓	✓
84	What is the purpose of a reactor control system in chemical plants?	✓	✓
85	What is the significance of process control in chemical engineering?	✓	✓