Dr.Babasaheb Ambedkar Technological University, Lonere

Summer Examinations May 2015

F.Y.B.Tech (All Courses)

Subject-Engineering chemistry-II

Semester-II

Course code: BH 204

Time:	3Hours				Marks:70	
Instru	ctions to the Stud	lents:				
2.3.4.	Attempt any five Illustrate your Necessary data that the knowle	e Question from Questionswers with neat sketch is given in the respective dge of that part is a part parameter is noticed to	on No 2 to Quest hes, diagrams etc e questions. If su t of examination	ion No 7. c. wherever necessal ch data is not given	ry. , it means	
Q1. Se	elect an appropri	ate option for each of th	e following:	·	(10)	
1.	According to condensed phase rule at eutectic point system is					
	a) Invariant.	b) Bivariant.	c) Both.	d) None.		
ii.	Chemical formu	la of Galena is				
	a) ZnS	b) AgS	c) FeS	d)PbS.		
iii.	What is the criti	cal temperature of water	system?			
	a) 374°C	b) 210°C	c) 200°C	d)204°C		
iv.	The Existence of solid substance is more than one crystalline form is					
	a) Polymorphi	sm b)Polymerism	c) Crystallisation	on. d) Polyprophi	lism	
	Unit of Molar conductivity is					
	a) Ohm ⁻¹ cm ²	mol ⁻¹ b) sec cm ² mo	1 ⁻¹ c) Both	d) None		
vi.	Zeolite process is also known as					
	a) Lime-soda process b) Permutite process c) keoline process d)All of these					
vii.	Which one of the following is non electrolyte.					
	a)NH ₄ Cl	b) CH ₃ COOH	c) CCI ₄	d)KNO ₃		
viii.	The flow of solvent from low conc. to high conc. is					
	a) Filtration	b) Osmosis c) I	Reverse Osmosis	d) Isotomisity		
ix.	Methyl orange has pH range is					
	a) 4.3-5.4	b)3.2-4.5	c)4.4-5.0	d)4.1-5.3		
X.	Separation of metal in crude form from the ore is called as:					
	a)Refining	b)Reduction	c)Mixing	d) Slag		

22. Attempt any two of the following.	(12)
a) What is the Softening of Water? Explain in detail Zeolite process with its Adva	antages
and Disadvantages.	
b) Explain how Dissolved Oxygen level in water can be determined by using Iod	lometric
method.	
c) Explain in detail Chemical Oxygen Demand.	
Q3. Attempt the following.	(12)
a) Explain Physical methods of Concentration of Ore.	
b) Explain Smelting process for reduction of ore.	
Q4. Attempt the following	(12)
a) Write the Phase Rule equation and Explain in detail various terms involved in	Phase
Rule equation.	
b) Explain in detail Phase diagram of Sulphur system.	
Q5. Attempt any two of the following.	(12)
a) What is Plastic? Give its classification.	
b) Define Polymerisation. Explain in detail Addition and Co-polymerisation.	
c) How molecular weight of polymer is determined by Osmotic Pressure Method	1?
Q6. Attempt any three of the following.	(12)
a) Explain the method of Conductance Measurement. and Discuss the term Cell	constant.
b) Explain the Variation of Equivalent conductance with Nature of electrolyte as	nd ionic
speed.	
c) Write a note on conductometric titrations.	
d) Write a note on Quinhydrone electrode.	
Q7. Attempt the following.	(12)
a) Explain Debye-Huckel Theory of Strong Electrolyte.	
b) Write a note on Quinonoid theory of acid-base Indicators.	