SVKM INSTITUTE OF TECHNOLOGY, DHULE

Mid Semester Examination – October 2019

Course: B. Tech in CO/IT/Elect. Engineering Div:- C, D, E	Sem: I
Subject Name: Engineering Chemistry	Subject Code: CHM1202
Max Marks:- 20 Date:- 04/10/2019	Duration:- 1 Hr.

Instructions to the Students:
1. Each MCQ carry one mark.
2. Draw neat labeled diagram for appropriate question.
3. If some part or parameter is noticed to be missing, you may appropriately assume it.

		(Level/CO)	Marks
Q. 1	**Answer the following multiple choice questions.**		**6**
	1. **Salts causing -------- hardness are treated by soda.** a) Residual b) Temporary c) Permanent d) All of above	(Apply)	
	2. **Disposal of large quantity of sludge is a problem in ----------.** a) lime soda process b) permanent hardness process c) zeolite process d) none of the above	(Remember)	
	3. **In Zeolite process for regeneration of zeolite bed ----------- solution is used.** a) 10% NaCl b) dil. NaOH c) dil. HCl d) dil H_2SO_4	(Apply)	
	4. **Mathematically, the phase rule can be expressed by ----------------.** a) $P = C – F + 2$ b) $F = C – P + 1$ c) $F + P = C – 2$ d) all of these	(Understand)	
	5. **Phase rule not much helpful in case of system attains equilibrium state ……...** a) very slow b) very fast c) very easly d) very general	(Understand)	
	6. **In Ag-Pb alloy system freezing curve of Pb starts at -----------.** a) 961 b) 303 c) 327 d) 974	(Remember)	
Q.2	**Solve <u>Any Two</u> of the following.**		3 X 2
(A)	**State principle of Winkler's method.**	(Remember)	
(B)	**Define Component and Degree of Freedom with example.**	(Apply)	
(C)	**Define Gibbs Phase rule, Polymorphism, Eutectic point of Ag-Pb alloy system.**	(Remember)	
Q. 3	**Solve <u>Any One</u> of the following.**		8
(A)	**What is softening of water? Explain Ion Exchange process of softening of water with its advantages and disadvantages?**	(Apply)	
(B)	**Explain the phase diagram of one component water system.**	(Understand)	
	*** End ***		