

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 ₂ SO 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 easily 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 ***		

