SCHEME OF EVALUATION

Revision: 2015

Course Title: ENGINEERING CHEMISTRY – I   Course Code:1004

Q No.	Scoring Indicator	Split up Score	Subtotal	Total
I **1.**	**PART – A** Definition. Absolute charge (1.6022×10^{-19} C).	1 1		2
2.	Any two disadvantages. 1 mark each	1x2		2
3	Definition. Mathematical expression.	1 1		2
4	½ mark for each point	4x½		2
5	Definition Mathematical expression.	1 1		2
II **1.**	**PART – B** (a)One mark for each difference (b) One mark for each	1x3 1x3	3 3	6
2.	(a)One mark for each difference (b) One mark for each; 2, 2.39, 3	1x3 1x3	3 3	6
3.	(a) One mark for each difference. (b) One mark for each difference.	1x3 1x3	3 3	6
4.	(a) One mark for each Brass: Cu (60-90%), Zn (40-10%) Bronze: Cu (80-95%), Sn (20-5%) Duralumin: Al(95%), Cu(4%), Mn (0.5%), Mg (0.5%) (b) One mark for each	1x3 1x3	3 3	6
5.	(a)definition Examples, I each (b)One mark for each application	1 1x2	3 3	6

6.	(a)Definition + two examples (b)one each forthree types	1+2 1x3	3 3	6
7.	(a)definition+ diagram + explanation. (b) One mark for each	1+1 +1 3	3 3	6
III	**PART – C** **UNIT-I** (a) 2 marks for definition and 1 mark for SWCNTs and 　　MWCNTs　　and 1 mark for explanation (b)one for each (c) Essay; minimum four methods **OR**	2+1 +1 1x5 6	4 5 6	15
IV	(a) Activity and selectivity with one example each (b) Explanation for homogeneous and heterogeneous 　　One mark for each examples indicating solid, liquid or 　　solid state (c) 1 mark for definition and 1 mark for example	4 1 4 2x3	4 5 6	15
V	**UNIT-II** (a) One mark for definition One mark for each examples (b)Definition Mathematical expression Relation (pH + pOH=pKw) (c)Definition Mathematical expression Problem; $M_1V_1=M_2V_2$; $pH= -log_{10} [M_2] = 4.30$ **OR**	1 1x3 2 2 1 1 1 4	4 5 6	15
VI	(a)Definition examples. (b) Definition Types and examples. (c)normality equation ($N_1V_1=N_2V_2$) Problem; $N_{KOH}=5.6/56=0.1$ Using normality equation, $N_{acid}= (0.1x20)/18.8= 0.106$ Strength of the solution = 0.106x49=5.19 g/litre	2 2 1 4 1 1 2 2	4 5 6	15

VII	**UNIT-III** (a) one for each (b) boiling and Clark's method (c) reverse osmosis Three disadvantages **OR**	1x4 5 3 3	4 5 6	15
VIII	(a)four characteristics (b)sterilization. Chemical changes (c) screening, sedimentation, coagulation, filtration and sterilization	1x4 2 3 6	4 5 6	15
IX	**UNIT-IV** (a) Alloys definition Three purposes (b) Fusion method diagram (c) six differences **OR**	1 1x3 4 1 1x6	4 5 6	15
X	(a) definition Three advantages (b) five steps with explanation (c) two marks for each explanation	1 1x3 1x5 2x3	4 5 6	15