Marking scheme: Engineering Chemistry (Set1)

End Semester examination (May 2018)

Paper Code - U127-105B(ESE)

Question number	Sub question number	Marking Scheme
Q.1	a)	PBR – 1 mark, Relation -1mark, 4 types of oxide films with example – 4 marks
	b)	Nature of metal and nature of environment -3 points each,3 marks each(1 mark for each point with explanation)
	c)	4 points of comparison – 4 marks
Q.2	a)	Definition – 1 mark, conditions – 2 marks, hydrogen evolution mechanism – 3 marks(condition of electrolyte, reactions at anode and cathode-1 mark, figure – 1 mark, explanation with example- 1 mark
	b)	Principle – 1mark, sacrificial anodic protection and impressed current cathodic protection- 2 ½ marks each (figure-1mark,explanation-1 ½ mark)
	c)	Figure-1mark,process-1mark,reaction – 1mark,2 advantages- 1mark
Q.3	a)	Construction – 2 marks, reactions of working of a nickel-cadmium storage battery – 2 marks, applications – 2 marks
	b)	Any four advantages – 4 marks
	c)	Any four Merits – 2 marks, Any four demerits – 2 marks
Q.4	a)	Constructionwith figure -2 marks, chemical reactions – 2 marks, any four uses – 2 marks
	b)	Working with reactions - 2 marks, advantages – 1 mark, disadvantages – 1mark
	c)	Reactions – 2marks, 2 advantages – 1 mark and 2 applications – 1 mark
Q.5)	1	(d) Colourless
	2	(b) Castor oil
	3	(d) $Mg(OH)_2$
	4	(a) NaCl
	5	(b) Hypochlorous acid
	6	(d) Reference electrode
	7	(b) 0.1 M HCl
	8	(d) Cell constant
	9	(d) Blue shift
	10	(a) Glass absorbs radiation of wavelength less than 350 nm
	11	(a) Ni or stainless steel crucible
	12	(c) 40-120°, C5 to C9
	13	(a) Aromatics
	14	(c) Trans esterification
	15	(c) 4 m^3
	16	(b) 90%
	17	(a) number of monomers in polymer chain
	18	(d) All of these
	19	(c) Na
	20	(a) thermoplastic