

Marking scheme: Engineering Chemistry (set 2)

RE
End Semester examination 2018 JUNE 18 - Paper code - U127-105B(RG-F&FF)

Question number	Sub question number	Marking Scheme
Q.1	a)	Definition – 1 mark, process- 1 mark, reaction-1 mark, figure-1 mark, 2 advantages-1 mark, 2 applications-1 mark, .
	b)	Principle- 1 mark, Two methods of cathodic protection with figure and explanation- 5 marks (2.5 marks each)
	c)	Definition – 1 mark, process- 2 marks, diagram- 1 mark
Q.2	a)	Definition- 1 mark, 5 factors- 5 marks
	b)	hydrogen evolution mechanism and oxygen absorption mechanism – 3 marks each(condition of electrolyte, reactions at anode and cathode-1 mark, figure – 1 mark, explanation with example- 1 mark
	c)	4 oxide films- 4 marks (1 mark each)
Q.3	a)	Types - 1 mark, components-1 mark ,working of the cell- 2 marks, figure- 1 mark, reactions-1 mark.
	b)	construction – 2 marks, working – 2 marks
	c)	Working- 1 mark ,electrode reactions- 2 marks, reason-1 mark
Q.4	a)	figure- 1 mark, charging discharging reactions -4 marks, two applications-1 mark
	b)	Definition – 1 mark, Classification – 1 mark, two features- 2 marks.
	c)	construction with figure- 2 marks ,working with reactions - 2 marks
Q.5)	1	a) Carbonate hardness
	2	a) OH^-
	3	c) CaSO_4
	4	c) Sodium alumino silicate
	5	b) Carbonic acid
	6	(b) 0.1 M HCl
	7	a) Conductance
	8	(c) Molar conductance
	9	d) $[\text{Fe}^{+3}]$ and $[\text{Ce}^{+3}]$ ions are present
	10	a) $\sigma \rightarrow \sigma^*$
	11	b) $\text{GCV} > \text{NCV}$
	12	a) Added
	13	a) Ignition delay
	14	c) Hexadecane
	15	a) 32
	16	(d) ethyl alcohol
	17	b) 2
	18	(a) Polyamide
	19	(b) plasticizer
	20	a) thermoplastic polymers