

V118-105 B (BE-ES)

Marking scheme: Engineering Chemistry (Set1)

Backlog examination Semester II (^{Dec}~~Aug~~ 2018)

Question number	Sub question number	Marking Scheme
Q.1	a)	Definition – 1 mark, 2 factors – 1mark, 4 metals with reaction and type of oxide film – 4 marks
	b)	6 factors with explanation - 6 marks
	c)	Digram-1 mark, 3 steps of process- 3 marks
Q.2	a)	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
	b)	Principle – 1mark, sacrificial anodic protection and impressed current cathodic protection- 2 ½ marks each (figure-1mark,explanation-1 ½ mark)
	c)	2 definition – 2 marks, which is more protective- 1 mark, why- 1mark
Q.3	a)	Construction- 1 mark, charging and discharging rection-4 marks (2 marks each), two applications- 1 mark
	b)	Definition – 1mark, 2 advantages – 1 mark, 2 disadvantages – 1 mark, 2 applications – 1 mark
	c)	4 features – 4 marks
Q.4	a)	Types- 1 mark, construction- 1 mark, figure- 1mark, reactions -2 marks, two limitations- 1 mark.
	b)	electrode reactions-2 marks, four applications-2 marks (0.5 mark each)
	c)	4 points – 4 marks
Q.5)	1	(d) Colorless
	2	(c) CO_3^{2-} and HCO_3^-
	3	(c) Solution of sodium chloride
	4	(c) Electrodialysis
	5	(a) Sodium phosphate instead of sodium carbonate
	6	(b)Platinum electrode
	7	(c) //a
	8	(d) 1.1 V
	9	(a) Indicator electrode
	10	(b) $A = - \log T$
	11	(d)All of the above
	12	(c) Trans esterification
	13	(a) Increases the octane no.
	14	(d) All of these
	15	(c) n-heptane
	16	(b) 40%
	17	(b) thermosetting
	18	(c)only monomer and initiator
	19	(c) Na
	20	d) liquid crystal polymer