

U118-10513 (BE-PP)
December Backlog Exam
F.Y. B.Tech - 2017 Pattern

Marking scheme: Engineering Chemistry

Question number	Sub question number	Marking Scheme
Q.1	a)	any six factors – 6 marks (1 factor – 1 mark)
	b)	Definition – 1 mark, figure, process, reactions, 2 advantages and 2 applications- 1 mark each
	c)	4 oxide films- 4 marks (1 mark each)
Q.2	a)	Definition – 1 mark, conditions- 2 marks, oxygen absorption mechanism – 3 marks (reactions at anode and cathode-1 mark, figure – 1 mark, explanation - 1 mark)
	b)	principle, figure, process, 2 advantages, 2 disadvantages and 2 applications of sacrificial anodic protection- 1 mark each
	c)	4 points – 4 marks
Q.3	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.4	a)	discharging electrode reactions- 2 marks each
	b)	four advantages- 2 marks, four disadvantages- 2 marks
	c)	4 points – 4 marks
Q.5)	1	(d) All of these
	2	(d) Colourless
	3	(c) Both (a) and (b)
	4	(d) All of these
	5	(c) Electrodialysis
	6	(b) 0.1 M HCl
	7	(d) Cell constant
	8	(b) σ
	9	(b) $[Ce^{+3}]$ and $[Fe^{+3}]$ ions are present
	10	(d) 5 and 6
	11	a) 32
	12	c) Hexadecane
	13	a) Ignition delay
	14	a) Added
	15	b) $GCV > NCV$
	16	(b) conducting polymer
	17	(b) thermosetting
	18	(c) only monomer and initiator
	19	(a) Bulky group increases T_g
	20	(b) Phenol