

Question number	Sub question number	Marking Scheme
Q.1	a)	Reactions - 1 mark, factors - 1 mark, 2 advantages - 1 mark, 2 disadvantages - 1 mark
	b)	principle - 1 mark, Quantity of water = 48077 lit - 3 marks
Q.2	a)	4 applications- 4 marks (1 mark each)
	b)	i) 239 nm ii) 249 nm- 2 marks each
Q.3	a)	Principle of distillation - 1 mark, figure - 2 marks, three fractions with composition, boiling range. - 3 marks
	b)	Figure - 2 marks, construction - 1 mark, working - 1 mark, 2 formulae - 2 marks
Q.4	a)	Definition-1 mark, 5 factors- 5 marks
	b)	functions of any four ingredients- 4 marks (1 mark each)
Q.5	a)	PHBV- 3 marks (structure-1 mark, properties-1 mark, applications-1 mark) Kevlar- 3 marks (structure-1 mark, properties-1 mark, applications- 1 mark)
	b)	four points- 4 marks
Q.6	a)	Cell reactions - 1 mark, procedure - 1 mark, calculations - 3 marks, titration curve - 1 mark
	b)	Discharge reactions - 2 marks, application - 1 mark, advantages - 1 mark
Q.7	a)	construction with figure - 2 marks, cell representation - 1 mark, electrode reactions - 2 marks, two uses- 1 mark
	b)	Construction with figure - 2 marks, Working reactions- 1 marks, 2 advantages - 1 mark
Q.8	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)	Any four factors with explanation - 4 marks
Q.9	a)	principle, figure, process, 2 advantages, 2 disadvantages and 2 applications of anodic protection - 1 mark each
	b)	Oxidation corrosion of Mg, Cr, Mo and Al - 4 Marks (1 marks each, Reaction-1/2 mark, type of oxide film-1/2 mark)
Q.10	a)	(iv) All of the above
	b)	iii) 1000-1100°C
	c)	(i) 0.01 M HCl
	d)	(i) Cathodic
	e)	(ii) Buried cables
	f)	(iii) powder coating