

S.E. Sem III Biomaterials (CBSGS)

Q.1	(a)	Applications of hydrogel with explanation	05
	(b)	Classification of biomaterials	03
		Applications of biomaterials	02
	(c)	Any five types of wear with explanation	05
	(d)	Applications of hydroxyapatite with explanation	05
Q.2	(a)	List various characterization techniques	02
		For any characterization technique: Block diagram	03
		Principle of operation	03
		Advantages and disadvantages	02
	(b)	Properties of stainless steel	05
		Applications with explanation	05
Q.3	(a)	Any three types of heart valves along their properties	10
	(b)	Nitinol Properties- shape memory effect, super elasticity	05
		Applications of nitinol	05
Q.4	(a)	Degradable polymer – PLA , PGA	02
		Their properties and applications	08
	(b)	Properties of Alumina	05
		Applications with explanation	05
Q.5	(a)	In vitro testing	05
		In vivo testing	05
	(b)	Five types of corrosions with diagram and explanation	10
Q.6	(a)	Properties and applications of PMMA	05
	(b)	Properties and applications of Polyethylene	05
	(c)	Properties and applications of Polyurethane	05
	(d)	Properties and applications of Composites	05
	(e)	Requirement of Biocompatibility for acceptance in human body	05