Paper / Subject Code: 50505 / Biomaterials, Prosthetics and Orthotics

S.F. (BioMed) /sem III (choice based.

Q.P. Code: 37615

Q.F. Code : 37023	The second second
[Time: Three Hours]	[Marks: 80]
N.B: 1. Question No.1 is compulsory. 2. Answer any three out of remaining five questions. 3. Figures to right indicate full marks. 4. Assume suitable data wherever necessary.	
	05
Explain application of Nitinol.	05
With neat diagram explain the different action of stainless steel as a biomaterial.	05
Circo the composition and application of State	05
Define joints. Classify the sylloviar joines	10
Explain in detail below knee prosthetic system with neat diagram. Define levers Explain them by giving suitable anatomical examples.	10
Define levels. Emparaterials	10
Explain various methods used for biological testing of biolinaterials. Explain the application and properties of Titanium and its alloys.	10
the secure in metallic implants.	10
Explain different types of corrosion which occurs in incume in particular and two in detail State the various polymers used for Biomedical application. Explain any two in detail	. 10
	10
Explain the stance phase of the gait cycle in detail, with heat diagrams. What are biodegradable ceramics? Explain in detail biodegradable Biomaterials	10
	20
1) Terminal devices 2) Three point pressure principle 3) Calcium phosphate Biomedical applications	
4) Cobalt - Chromium alloys Properties	
	Please check whether you have got the right question paper. N.B: 1. Question No.1 is compulsory. 2. Answer any three out of remaining five questions. 3. Figures to right indicate full marks. 4. Assume suitable data wherever necessary. Explain application of Nitinol. With neat diagram explain the different abnormal spinal curvatures. Give the composition and application of stainless steel as a biomaterial. Define joints. Classify the synovial joints. Explain in detail below knee prosthetic system with neat diagram. Define levers. Explain them by giving suitable anatomical examples. Explain various methods used for biological testing of biomaterials. Explain the application and properties of Titanium and its alloys. Explain different types of corrosion which occurs in metallic implants. State the various polymers used for Biomedical application. Explain any two in detail Explain the stance phase of the gait cycle in detail, with neat diagrams. What are biodegradable ceramics? Explain in detail biodegradable Biomaterials. Write short notes on any FOUR 1) Terminal devices 2) Three point pressure principle

5) Application of biomaterials in drug delivery systems.