

Printed Pages : 2

BT-705

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 9525

Roll No.

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B. Tech.**(SEM. VII) EXAMINATION, 2007-08****BIOMATERIALS***Time : 3 Hours]**[Total Marks : 100**Note : (1) Attempt all questions.**(2) All questions carry equal marks.*

- 1 Differentiate and describe chain growth and step growth polymerization with suitable examples. 20

OR

- 1 Differentiate between number average; weight average and viscosity average molecular weights and explain the influence of molecular weight on mechanical properties of polymer. 20
- 2 Give a detailed account on various biomimetic materials and their adsorption to surfaces. 20

OR

- 2 Describe the chemical configuration of Hydroxyapatite polyethylene polymers and biomaterial applications. 20
- 3 Describe blood/protein contacting devices giving atleast two examples. 20

OR

3 Give an account of Brannon Peppas theory of swelling of hydrogels. 2

4 Describe briefly the calcium phosphate containing ceramic like implants and their application in biomedical implantation. 2

OR

4 Discuss on the pulsed drug delivery in tissue engineering. 2

5 Describe the role of nano and micro particles as drug and biomaterial carriers. 2

OR

5 Write short notes on (i) hydrogels and (ii) gel swelling principles. 2