



TAMPERE UNIVERSITY OF TECHNOLOGY

Department of Biomedical Engineering

EXAM 15th of December 2009
BIOM-3106 Implantology

Q1. (6p)

Explain shortly following terms and concepts (1p/question):

- a) Granulation tissue
- b) Angiogenesis
- c) Roleaux
- d) Infection
- e) Callus
- f) Macrophage

Q2.(6p)

Write a short essay about inflammation and how it is related to implantation.

Q3.(6p)

Explain differences between:

- a) contamination compared with colonization (2p)
- b) regeneration compared with repair (2p)
- c) in wound types: abrasion compared with penetration (2p)

Q4.(6p)

- a) What are myofibroblasts and why they are needed in wound healing? (3p)
- b) What is the difference in wound healing by Primary Intention and Secondary Intention? (3p)

Q5.(6p)

Explain the principles of analyzing tissue specimen by

1. Computerized Tomography, CT
2. Scanning Electron Microscope equipped by Energy Dispersive X-Ray Analysis, SEM/EDXA
3. Grey Levels by SEM

Comment about benefits and problems with each of them.