

IV B.Tech I Semester Supplementary Examinations, November 2005
PHYSIOLOGICAL SYSTEMS MODELLING
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. In detail explain the characteristics of physiological system models. [16]
2. What are the levels of modelling? Explain each one of them in detail. [16]
3. Describe the concept of steady state approaches to modelling. [16]
4. Explain the terms:
 - (a) perceived intensity
 - (b) adaptation [8+8]
5. With examples, explain the measurement of autocorrelation function. [16]
6. Give the statistical characteristics of MEPP data and explain. [16]
7. Estimate insulin sensitivity by developing models of optimal complexity. [16]
8. Write short notes on:
 - (a) Model comparison
 - (b) PDF [16]
