R09

Code No: C4503, C9308

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY 2012
BIOMEDICAL SIGNAL PROCESSING
(SYSTEMS & SIGNAL PROCESSING)

Time: 3hours **Max.Marks:60**

Answer any five questions
All questions carry equal marks
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1.a) Define density function of Rayleigh function and discuss its features.
b) List out any two properties of distribution function.
c) Give the condition for the density function to be valid.
d) Explain the Law of addition of probability.

2.a) Explain stationary random processes with an example.
b) Write the Properties of Characteristic function.

3.a) Explain the principle of operation of the Turning point algorithm.
b) Draw and explain the flowchart for AZTEC Algorithm.

4.a) Explain about QRS detection method.
b) Explain about automated ECG analysis.

5.a) Explain the principles of Adaptive noise cancellation.
b) Discuss about Adaptive Noise Cancellation using LMS Adaptation Algorithm.

6.a) How does prony's method analyze the visual evoked signals?
b) Draw the exponential waveforms of visual evoked potential.

7.a) Give a typical sketch of EEG signal for different stages of sleep and explain the same.
b) Discuss about inverse filtering.

8.a) Discuss about detection of Alpha, Beta and Gamma Waves.
b) Explain about auto regressive modelling.

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