

International Institute of Information Technology – Hyderabad

Speech Signal Processing

Mid sem Exam 1

September 2016

Answer all the questions

1. Why speech processing is required? Why it is so complex for the machines compared to human beings? (3 M)
2. (a) Draw the speech signal for the word “kitAb” intuitively. (2 M)
(b) What are excitation characteristics of sounds present in “kitAb”. (2.5 M)
(c) What are vocal tract system characteristics of sounds present in “kitAb”. (2.5 M)
3. Draw the LTI model of speech production and explain clearly two speech processing algorithms which are motivated by speech production. (4 M)
4. Explain any two V/UV detection algorithms and state its advantages and disadvantages. (4 M)
5. Explain how epoch extraction algorithms are evaluated. (2 M)