Computer Assignment 4: Signals & Systems

IIIT Sri City

10-18 April 2019

Maximum Grade: 10

1 Sampling

For each of the signals, determine the appropriate bandwidth and the nyquist sampling rate

1.

$$x(t) = \begin{cases} (t-1)^2 & 0 < t < 2 \\ 0 & Otherwise \end{cases}$$

2.

$$x(t) = \frac{sin^2(t)}{t^2}$$

3.

$$x(t) = \begin{cases} cos(\pi t) & |t| < 1 \\ 0 & Otherwise \end{cases}$$