

Biomedical Signal Processing (BSP): Quiz 1		
Date: 20.03.2018	Period: 20 minutes.	
Name:	Student Number:	
<p>1. Determine the output of a linear time-invariant system if the input and impulse response of the system are $x[n] = a^n u[n - 5]$ and $h[n] = u[n]$, respectively.</p>		
2. The information carried by the neuron is coded in the amplitude and the duration of the action potential.	T	F
3. The recording of the spontaneous electrical activity of the excitable tissues (e.g., brain and cardiac muscle) over a period of time is known as electroencephalography (EEG).	T	F
4. The system described by $y[n] = \alpha y[n - 1] + x[n]$ for $0 < \alpha < 1$ has infinite impulse response.	T	F
5. The Fourier transform of $x[n] = \left(\frac{3}{2}\right)^n u[n] + \left(-\frac{1}{3}\right)^n u[n]$ converges.	T	F
6. The phase of Fourier transform of a real sequence is an odd function of continuous variable, ω .	T	F