

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_  
Signature: \_\_\_\_\_

**CITY UNIVERSITY OF HONG KONG**

**Semester A 2015/2016**

**EE3210: Signals and Systems**

**Quiz 1**

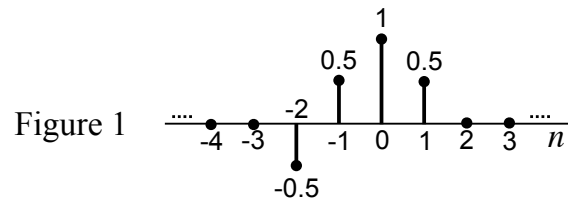
1. Time allowed: 15 minutes
2. Total number of problems: 2
3. Total marks available: 12
4. This paper may not be retained by candidates

**Special Instructions**

5. This is a closed book exam
6. Attempt all questions from each problem

**Problem 1:** (9 marks)

A discrete-time signal  $x[n]$  is shown in Figure 1 below.



Sketch and label carefully each of the following three signals:

- (a)  $x[-n]$  (3 marks)
- (b)  $x[2 - n]$  (3 marks)
- (c)  $x[2 - 2n]$  (3 marks)

**Problem 2:** (3 marks)

Show that if a discrete-time signal  $x[n]$  is an odd signal, then  $x[0] = 0$ .

— End of Paper —