Test 1R Math 1505.06 25 October 2016

NAME (print):_____
(Family) (Given)

STUDENT NUMBER:_____

A Sharp EL-510 RN calculator is permitted. No notes, formula sheets books, computers, or cellphones are permitted.

All questions are closely modelled on the exercises in the textbook. I recommend focusing on the textbook exercises given below for each question.

Question 1 [1.5 marks]
Suppose $f(x) = XXXX$.
Evaluate XXXX and simplify your answer.

Q1 is based on diagnostic A-D and section 1.1.
1.1: 2,7,27,28,29,30,31, 32,34,40,52,58

Question 2 [1.5 marks] Word problem. Express XXXX as a linear function of XXXX. At what XXX is XXX equal to XXX?

Q2 is based on section 1.2.
1.2: 5,8,9,10,11,12,14,15,19

Question 3 [1.5 marks - divided equally between the parts] Do both parts.
Part 1: Calculate $f \circ g$ and find the domain of $f \circ g$ where XXXX

Part 2: Word Problem on exponentials. Find a formula for XXX . What is XXX when XXX ?

Q3 is based on section 1.3; 1.4 (omitting p. 43 and example 6).
1.3: 22,24,26,27,29,30,31,33,37
1.4: 1,5,6,21,30,31,32,34

Question 4 [2 marks - divided equally between the parts] Do both parts.

Part 1: Solve, evaluate or find XXXXX

Part 2: Find a formula for the general term or the first five terms of the sequence XXXX

Q4 is two parts and based on section 1.5 (up to end of p.61); and section 1.6 (up to bottom p.73).
1.5: 18,19,23,26,31,38,40,45,49,53
1.6: 9,10,15,16,34

Question 5 [2 marks - divided equally between the parts] Do both parts.

Part 1: Determine whether the following sequence is convergent or divergent. If it is convergent, find the limit. If it is divergent, say if it diverges to ∞ or $-\infty$.
XXXXXX

Part 2: Evaluate $\lim_{t \to XXXX} XXXX$
If the limit does not exist, say if it is ∞ or $-\infty$.

Q5 is two parts and based on section 2.1 (omit p.97-98) and section 2.2 (omit example 8).
2.1: 9,10 11,12,13,14,15,16,23,35,36,41,42
2.2: 6,7,11,13,17,18,25,27

Question 6 [1.5 marks] Evaluate the limit, if it exists.

$$\lim_{h \to 0} XXXXXX$$

Q6: is based on section 2.3 (omit examples 5,6,7,8,10,12); and section 2.4 (up to end p.129).
2.3: 29,30,33,36,37
2.4: 9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24