King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 Section 19 Quiz I (Term 151)

Name : ..... **ID** #..... Serial #: .....

1. For the function h whose graph is given, state the value of each quantity, if it exits. If it does not exist, explain why.

(a) $\lim_{x\to -3^-} h(x)$

(b) $\lim_{x\to -3^+} h(x)$

(c) $\lim_{x\to -3} h(x)$

(d) $h(-3)$

(e) $\lim_{x\to 0^-} h(x)$

(f) $\lim_{x\to 0^+} h(x)$

(g) $\lim_{x\to 0} h(x)$

(h) $h(0)$

(i) $\lim_{x\to 2} h(x)$

(j) $h(2)$

(k) $\lim_{x\to 5^+} h(x)$

(l) $\lim_{x\to 5^-} h(x)$

2. Evaluate the limit, if it exists.

(a) $\lim_{t \to -3} \dfrac{t^2 - 9}{2t^2 + 7t + 3}$

(b) $\lim_{x \to -6} \dfrac{2x + 12}{|x + 6|}$

(c) $\lim_{h \to 0} \dfrac{\sqrt{9+h} - 3}{h}$

(d) $\lim_{x \to 0} x^2 \sin \dfrac{1}{x}$

(e) $\lim_{x \to 2}([x] + [-x])$ where $[x]$ is the largest integer less than or equal to x.