$\begin{array}{c} {\rm Math~270~-~Basic~Discrete~Mathematics}\\ {\rm Practice~Quiz~on~Section~4.9} \end{array}$

Directions: Answer the problems given below.
1. In each part, determine whether such a graph exists: if it does, draw a picture; if it does not, clearly indicate why not.
a. A graph with 5 vertices all of degree 2.
b. A simple graph with 5 vertices of degrees 1, 2, 2, 3, 4.

 ${\bf c.}$ A simple graph with 5 vertices all of degree 3.