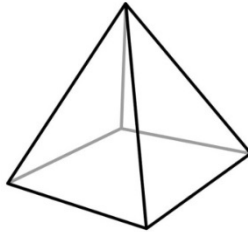


Pop Quiz (Week 2) [10 mins] – 10 pts

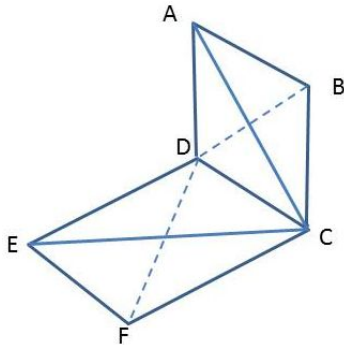
Name: _____ Student ID: _____

Mark **all** the correct answers.

1) **[2+2+2=6]** Consider the following pyramid.



- a) Its Euler characteristics is
 - i) 1
 - ii) 2
 - iii) 3
 - iv) 4
- b) Its genus will be
 - i) 0
 - ii) 1
 - iii) 2
 - iv) 3
- c) In terms of topology, a sphere and this pyramid are
 - i) Same
 - ii) Different



- 2) **[2+1+1=4]** Consider the above object object.
- a) Consider the solid lines only and write out its topological information.

- b) If the bold diagonals are changed to the dotted lines, which of the following properties of the object has changed.
 - i) Geometry
 - ii) Topology
- c) The smallest set to which this object belongs is
 - i) Manifold
 - ii) Manifold with boundaries
 - iii) Manifold without boundaries