**2) Provide your best definition of an animal. “An animal is….(finish the statement).”**

* Multicellular eukaryotes
* Lack cell walls
* Heterotrophs – acquire food and nutrients by eating other organisms
* Motile at some time in their lives
* Some animals sessile as adults
* Reproduce asexually or sexually

4) **Differentiate between the terms acoelomate, pseudocoelomate, and coelomate. Provide some examples of acoelomate, pseudocoelomate, and coelomate animals.**

* Acoelomate
  + No body cavity
  + Example: flatworms (Phylum Platyhelminthes)
* Pseudocoelomate
  + Pseudocoelum: Fluid-filled or organ-filled space between endoderm and mesoderm
  + Example: roundworms (phylum Nematoda)
* Coelomate
  + True coelom, body cavity entirely lined by peritoneum derived from mesoderm
  + Mesenteries surround inner organs

**5) Compare protostome and deuterostome development. List the major differences.**

* Protostome:
  + Blastopore develops into mouth, anus forms later
* Deuterostome
  + Blastopore develops into anus, mouth forms later

**6) What is radial symmetry? Which animals exhibit radial symmetry?**

* Body parts arranged around central axis

**7) Which animals lack true tissues?**

* Parazoa – Sponge

**8) Describe two ways that most amphibians acquire oxygen from their environments.**

* Osmoses through skin
* Lungs

**9) Why are monotremes a unique group of mammals?**

**10) Why is segmentation very important in some animals? Provide some evidence of segmentation in humans.**

* each segment may include complete set of important organs and muscles
  + May help survive damage
  + Improves control of locomotion, especially in worm-like organisms
* Evidence of segmentation in vertebrates
  + Vertebral column, ribs, muscles in abdomen
  + Allows greater flexibility of movement

**11) How did the Ecdysozoa group get its name? (HINT: What is ecdysis?)**

* Because they escape their outer shell
* Shed

**12) How did the Lophotrochozoa group get its name? (HINT: What is a lophophore? What is a trochophore larva?)**

* Because they look like a crest
* Lophos = crest

**13) Provide three reasons why insects have been extremely successful as a group.**

* Different mouth shapes for feeding
* Flight