Key Terms –
The final exam is cumulative, so review all the other study guides too.

Hallux
Collateral ancestry
Direct ancestry
taphonomy
Epochs:
  - Eocene
  - Oligocene
  - Miocene
  - Pliocene
  - Pleistocene
  - Holocene
Foramen magnum
Diastema
Sectorial first premolar
Cranial capacity
Postorbital constriction
Pre-frontal cortex (frontal lobe)
Oldowan tools
Acheulean handaxe
Lumbar curve
Facultative bipedalism
Obligate bipedalism
Precocial young
Altricial young
Lucy
Selam (Dikika baby)
Taung child
Turkana Boy
Dmanisi
Australopithecus afarensis
Au. africanus
Paranthropus aethiopicus
P. robustus
P. boisei
(Homo habilis (includes H. rudolfensis)
H. erectus (includes H. ergaster)
H. heidelbergensis + H. antecessor
H. neanderthalensis
H. sapiens
Cave art
Hominoid / hominin / Homo
“Early homins” adaptive radiation
“Early humans” adaptive radiation
“Archaic humans” adaptive radiation
“Modern humans”
Upper Paleolithic
Thought Questions – Answer each with a brief outline or paragraph. Include specific examples and definitions whenever possible.

1. Make another timeline, this time from memory, this time with 6 million years. Place the following on it:
   a. First hominins (hint, may need to draw an arrow off the timeline).
   b. Each of the species listed above.
   c. Each of the adaptive radiations listed above.
   d. First known use of tools
   e. First known use of fire
   f. First known obligate bipeds
   g. First known elderly folks
   h. First known sexually dimorphic pelves (in hominins)
   i. First known site outside Africa
   j. First species with definite burials
   k. First farming
   l. First writing (i.e., when written history began)

2. What is taphonomy? Why is it important in paleoanthropology? Discuss at least two examples of specific fossils with interesting taphonomic stories. Hint: view the TED talk by Louise Leakey and consider the taphonomy of Turkana Boy’s skull.

3. Discuss the mosaic nature of our bodies. When did our ancestors first have an opposable hallux? Fingernails? Dry noses? Fully enclosed eye sockets? Flexible shoulders? Short, broad trunk or torso? Short, wide pelvic bones? Modern limb proportions? Modern cranial / facial shape? Be able to name examples of early fossils with these characteristics.

4. With which hominin species do we start to see behavior that is far more human than ape-like? Discuss this species, its characteristics, where it lived, and what aspects of modern human behavior the species showed and didn’t show.

5. A common creationist argument is that there are no transitional forms in the hominin fossil record. Name at least three hominin species that do show transitions, and discuss these transitions in detail, using course vocabulary.

6. Humans are a remarkably diverse species, so why do biological anthropologists say there are no “races” of humans? (Be sure to define “race” in your answer.)

7. Scientists must be open to revision. In October 2013, new data from Dmanisi caused anthropologists to revise their view of some hominin species. Which species may be revised? Why? What would the revision be?