

Comments on exam (LP_2 is this Lab practical): As is kind of typical for the final, students know the taxonomy and identification well, or not so well. I usually have a somewhat similar mean score, but the range of scores broadens quite a bit. Same pattern was followed in this exam.

Stat	LP_1	LP_2
Mean	80	78
SD	10	14
Min	61	38
Max	94	98
Med	82	78

Comments on grading:

1. If the answer of two-part question depended on the previous part of the question, and your answer was right for lower level, I gave 25% credit rather than taking all points off. For example, if correct answers were Carnivora for order and then *Procyon* for the genus, but you put Artiodactyla and then put *Odocoileus* for genus, 25% of full credit was given.
2. I was liberal on accepting incorrect spellings – this deviates from patterns in some other classes but it is the way that I typically grade. Not a reflection on other classes/instructors and their choices, for some reasons I should be more strict on spelling but have decided not to.
3. Questions 51 and 52 were bonus questions – I forgot to bring back to lab for review. If you got these questions correct they were added to score. If you got these questions wrong they did not count as a negative.
4. In general, if there were two lines for answers, the question was worth 2 points. 1 line worth 1 point, 4 lines worth 4 points, etc.
5. There were 99 points possible, 3 were bonus question points, so the percentage is based out of 96 points.

1	What order and species is this specimen a member of? Order: _____ Soricomorpha or Insectivora. Species: _____ Short-tailed shrew, <i>Blarina brevicauda</i>.
2	What species is this skin from? <i>Clethrionomys gapperi</i>, Red-backed vole skin.
3	What species is this skin from? <i>Badger, Taxidea taxus</i>
4	How many (total) Incisors are there on this specimen? Canines? Incisors: <u>4 (1/1 * 2) incisors</u> Canines: <u>0 canines</u> What species is this skin from? <i>Castor canadensis</i>
5	What order and species is this specimen a member of? Order: _____ Soricomorpha or Insectivora. Species: _____ <i>Sorex palustris</i>, water shrew.
6	If this specimen came from Minnesota, what family would it be in? Family: _____ Vespertilionidae

	What species is it? _____ <i>Myotis lucifugus</i> is species
7	What genus would you place this specimen in? Genus: _____ <i>Didelphis</i> , opossum skull
8	What is the lowest taxonomic category these two specimens have in common (highest = class down to the lowest = species)? Circle the category and write the name. Class Order Family Genus Species Name: _____ Rodentia
9	What species is this? <i>Silver-haired bat, Lasiurus noctivagans.</i>
10	What order and family is this skull from? Order: _____ Lagomorpha . Family: _____ Leporidae is family.
11	What species is this from? Species: _____ <i>Alces alces</i>
12	What characteristics might lead you to conclude that this is or is not a rodent? Rat (<i>Rattus norvegicus</i>) . Comment on the incisors, cheek teeth and diastema.
13	Does this specimen have prismatic cheekteeth? What does "prismatic cheekteeth" mean? <i>No Peromyscus maniculatus</i>
14	What order is this skull in? _____ Chiroptera .
15	What is the lowest taxonomic category these two specimens have in common (highest = class down to the lowest = species)? Circle the category and write the name. Mammalia Class Order Family Genus Species Name: _____ Rodentia / Carnivora
16	What bones are labeled A and B? Bone A: _____ Tibia Bone B: _____ Humerus
17	What is the lowest taxonomic category these two specimens have in common (highest = class down to the lowest = species)? Circle the category and write the name. Order Carnivora Class Order Family Genus Species Name: _____ Canidae / Mustelidae .
18	To what order does this specimen belong and what bones are labeled A and B? Order: _____ Artiodactyla Bone A: _____ Cannon bone Bone B: _____ Tibia/Fibula

19	What species is this skin from? <i>Vulpes vulpes</i> , Red fox
20	What order, family and species is this skin from? Order: _____ Rodentia is order Family: _____ Geomyidae is family Species: _____ Rodentia is order
21	What is the lowest taxonomic category these two specimens have in common (highest = class down to the lowest = species). Circle the category and write the name. Genus Class Order Family Genus Species Name: _____ <i>Sciurus</i> , fox/gray squirrel
22	Order: _____ Lagomorpha Family: _____ Leporidae
23	What species is this? What order is it in? Species: _____ <i>Mustela frenata</i> (Long-tailed weasel) Order: _____ order is Carnivora
24	What order, family and species is this skull? Order: _____ Carnivora Family: _____ Procyonidae Species: _____ <i>Procyon lotor</i>
25	You have reached couplet 17b of the key in front of you. Indicate the path for 2 more steps. <i>Rat, Rattus norvegicus</i> , so 17B to 19A to 20A
26	What is the lowest taxonomic category these two specimens have in common (highest = Class down to the lowest = Species)? Circle the category and write the name. Class Mammalia Class Order Family Genus Species Name: _____ Ermine, gray squirrel
27	What species is this skull and what diet would you expect it to have? <i>Ursus americanus</i> . Omnivorous,
28	To what order does the specimen belong? Species? Order: _____ Order is Carnivora Species: _____ <i>Urocyon cinereoargentus</i>

29	<p>What is the lowest taxonomic category these two specimens have in common (highest = Class down to the lowest = Species)? Circle the category and write the name.</p> <p>Class Order Family Genus Species Name: _____</p> <p>Class Mammalia (rodent / soricomorph).</p>
30	<p>To what family does this specimen belong and what bones are labeled A and B?</p> <p>Family: _____ Felidae</p> <p>Bone A: _____ Scapula Bone B: _____ Fibula</p>
31	<p>What species is this, if the specimen is an adult male?</p> <p><i>Mephitis mephitis</i>, Striped skunk.</p>
32	<p>To what family does this specimen belong and why (anatomical features) did you say that?</p> <p>Family: _____ Cervidae</p>
33	<p>What type of cheekteeth does this specimen have?</p> <p>_____ Hypsodont, selenodont.</p>
34	<p>What species is this?</p> <p>Species: _____ Eastern chipmunk (<i>Tamias striatus</i>)</p>
35	<p>What is the name of the bone labeled with 8 and 9? <i>Odocoileus virginianus</i> skull</p> <p>8: _____ Premaxilla 9: _____ Frontal</p>
36	<p>What species is this skull? _____ Coyote (<i>Canis latrans</i>) skull...</p>
37	<p>What species is this? _____ <i>Didelphis virginiana</i> skin (opossum).</p>
38	<p>What is the lowest taxonomic category these two specimens (skins) have in common (highest = Class down to the lowest = Species)? Circle the category and write the name. Carnivora</p> <p>Class Order Family Genus Species Name: _____ Procyon lotor and otter (<i>Lutra canadensis</i>)</p>
39	<p>What species is this specimen? _____ Moose (<i>Alces alces</i>) skull...</p>
40	<p>Assuming you have keyed this to selecting among the tooth patterns in the figure, what species is this?</p> <p><i>Microtus pennsylvanicus</i>.</p>

41	What Order and species is this specimen? Order: _____ Rodentia Species: _____ <i>Castor canadensis</i>
42	What letters correspond to teeth that make up the carnassial pair in this specimen? Letters: _____ H and M.
43	What species is this specimen? Species: _____ <i>Bison (Bison bison)</i> skull.
44	What Order and species is this? Order: _____ Chiroptera Species: _____ <i>Lasiurus borealis</i> , red bat.
45	What genus is this specimen in? _____ Bat skull to key to genus- Myotis
46	What species is this specimen? _____ <i>Blarina brevicauda</i> skull.
47	What species is this specimen? _____ <i>Ondatra zibethicus</i> skin.
48	What species is this specimen? _____ <i>Microtus chrotorrhinus</i> skin.
49	What bones are labeled on the articulated skeleton? A: _____ Radius _____ B: _____ Scapula _____ C: _____ Femur _____ D: _____ Mandible _____
50	What species is this? _____ <i>Condylura cristata</i> skin.
51	What species is this? _____ <i>Urocyon cinereoargentus</i> skin. Order: _____ Carnivora
52	What species is this? _____ <i>Martes americana</i> skin.
53	What species is this? What order is it in? Species: _____ <i>Spermophilus tridecemlineatus</i> is species Order: _____ Rodentia is order
54	What species is this from? What type of antler is it? Species: _____ <i>Alces alces</i> is species Antler type: _____ Palmated antler

55	What species is this? What order is it in? Species: _____ Order: _____	<i>Marmota monax</i> is species Rodentia is order
56	What family is this skull in? _____	Soricidae.
57	To what order and species does this specimen belong? Order: _____ Rodentia, Species: _____	<i>Glaucomys sabrinus</i> .
58	What is this bone? Where might it be from?	<i>Bison vertebrae</i> .
59	What species is this from? What family? Species: _____ Family: _____	<i>Odocoileus virginianus</i> is species Cervidae is family
60	What species is this?	<i>Erythizon dorsatum</i> skin.