

Final Lab Exam PRACTICE, Fall, 2016

Invertebrate Paleontology

20 questions, total 40 points

Directions: This is an individual exam, so *by yourself*, examine each fossil on the tray, (no particular order necessary) and complete the exam - it should take you about 20 minutes. The key to this Practice exam is available on line in the lab syllabus page. Grade yourself on this and determine where your general weaknesses are. The actual lab final will be similar, but not exactly like, this practice exam.

1A. This assemblage is characteristic of (circle the correct answer)
 Early Paleozoic Late Paleozoic Late Mesozoic Late Cenozoic

1B The environment it represents is (circle the correct answer)
 Inner shelf deep ocean rocky coast sandy shore

2A This assemblage is characteristic of (circle the correct answer)
 Silurian Permian Cretaceous Tertiary

2B The assemblage here dominated in a (circle the correct answer)
 Coral reef sponge reef crinoid thicket shell hash

3A This trilobite molt is the part of the exoskeleton known as (circle the correct answer)

Cephalon thorax pygidium genal spine

3B The chitin of a trilobite exoskeleton has a layer of _____.
 (circle the correct answer)

Pyrite calcite silica aragonite

4A This is a fossil _____ (circle the correct answer)

Sponge coral bryozoan brachiopod

4B The fossilization process here is one of (circle the correct answer)

Carbonization recrystallization replacement unaltered

5A This fossil is a (circle the correct one)

Gastropod

Cephalopod

5B. The distinguishing characteristic between these two groups is
 planispiral coiling presence/absence of septal walls size coiling direction

6A These echinoderm remains are typical of

Shell hash

crinoid mounds

coral reefs

stromatolites

6B These animals changed habitats in Mesozoic time, moving

From inner shelf to outer shelf /slope

from inner shelf to estuaries

7A The preservation of this fossil fish implies (circle the correct answer)

Deposit in a strong current

wave action

Anoxia at depth

7B The preservation conditions involved (circle the correct answer)

Replacement

recrystallization

carbonization

permineralization

8A This is a fossil shell of a (circle the correct answer)

Brachiopod

Bivalve Mollusk (Pelecypod)

8B The correct identification is based on (circle the best group of 3 characteristics)

Vertical symmetry plane

Horizontal symmetry plane

Vertical symmetry plane

pedical opening

pallial line

pedical opening

Hinge features

hinge features

pallial sinus

9A This is a fossil cephalopod typical of the (circle the correct answer)

Nautiloids

Ammonoids

Coleoids

9B The sutures are (circle the correct answer)

Goniatite

Ceratite

Ammonite

Straight-walled

10A This is a fossil cephalopod typical of (circle the correct answer)

Nautiloids

Ammonoids

Coleoids

10B The sutures are (circle the correct answer)

Goniatite

Ceratite

Ammonite

Straight-walled

11A Members of this group all share a common feature, which is the _____
(fill in the blank)

11B The sedimentary environment that supports them must be (circle the correct answer)

Soft sediment

Hardground

coarse sand and gravel

12A This group all share a common feature, which is the _____
(fill in the blank)

12B The environment that supports them must be (circle the correct answer)

Marine

Freshwater

Estuarine

13A These bivalves are typical of (circle the correct answer)

Ordovician

Permian

Cretaceous

Quaternary

13B The extreme thickness of the shells is a response to an increase in (circle the best answer)

predation oxygen

temperature

competition

14A These are fossil _____ (fill in the blank)

14B The characteristics of the environment that supported them included (circle the best group of 3 characteristics)

Deep ocean

shallow clear water

muddy water

volcanics

Carbonate mounds

carbonate mounds

strong current

weak current

weak current

15A These are fossil _____ (fill in the blank)

15B The approximate age of these fossils is (circle the correct answer)

Paleozoic

Mesozoic

Cenozoic

16A The scar marked by the arrow on this bivalve cast indicates the _____ (fill in the blank)

16B The presence of this scar indicates (circle the best answer)
 a lophophore tiering a pygidium calcifying

17A This wood is preserved by the process of _____ (fill in the blank)

17B The mineral most commonly associated with this type of preservation is (circle the correct answer)

Silica calcite pyrite aragonite

18A This cephalopod is an ammonid with sutures that are (circle the best answer)
 goniatite ceratite ammonite straight-walled

18B The shell shows the presence of the mineral _____ (circle the best answer) which re-orders over time to calcite.

Magnetite pyrite aragonite silica

19A This fossil is preserved as a (circle the best answer)
 Mold cast permineralization carbonization

19B This fossil preserves the imprint of a (circle the correct answer)
 Brachiopod bivalve mollusk echinoid crinoid

20A These fossils are _____ calices (circle the correct answer)
 Crinoid Blastoid Echinoid Asteroid

20B These fossils are (circle the best group of 3 characteristics)

Paleozoic	Paleozoic	Late Mesozoic	Early Cenozoic
Marine	Marine	Marine	Freshwater
abyssal plains	shallow shelf	outer shelf	fluvial
