

**Physical Anthropology and Archaeology, Fourth Canadian Edition (Ember) Chapter 2
Uncovering the Past: Tools and Techniques**

2.1 Multiple Choice Questions

- 1) The spatial distribution that archaeological remains have in relation to each other at a site is known as
- A) stratigraphy.
 - B) relative dating.
 - C) site formation processes.
 - D) provenience.
 - E) absolute dating.

Answer: D

Diff: 2

Type: MC

Page Ref: 38

Skill: R

- 2) Archaeologists conduct excavations and recover artifacts from where they were buried; thus, by its very nature, archaeological excavation is
- A) destructive -- the context of the artifacts is lost.
 - B) tiring -- archaeologists must work very hard during excavations.
 - C) profitable -- many of the artifacts recovered are priceless.
 - D) something that amateurs can easily master.
 - E) something that is usually conducted as quickly as possible.

Answer: A

Diff: 2

Type: MC

Page Ref: 27

Skill: R

- 3) Material culture -- objects that people have and make -- is
- A) made up exclusively of archaeological artifacts.
 - B) a direct reflection of past culture.
 - C) made up exclusively of archaeological features.
 - D) perfectly preserved in the archaeological record.
 - E) not reflected in garbage middens.

Answer: B

Diff: 1

Type: MC

Page Ref: 27

Skill: R

- 4) Identify the best sequence below for conducting an archaeological excavation.
- A) site prospection, site identification, excavation and recovery, dating
 - B) dating, site surveying, site identification, dating, excavation and recovery
 - C) site surveying, site prospection, site identification, dating, excavation and recovery
 - D) site identification, site prospection, site mapping, excavation and mapping of recoveries, dating
 - E) site mapping, site prospection, site identification, dating, excavation and recovery

Answer: D

Diff: 3

Type: MC

Page Ref: 34-38

Skill: A

- 5) A butchered seal bone is an example of a(n) _____.
A) zoonose

- B) grid
- C) feature
- D) datum
- E) ecofact

Answer: E

Diff: 1

Type: MC

Page Ref: 33

Skill: A

6) The main difference between archaeological sites and fossil locales is

- A) features are found only at fossil locales.
- B) fossil locales only yield animal remains.
- C) archaeological sites are younger than fossil sites.
- D) human remains are always associated with archaeological sites.
- E) artifacts are only found at archaeological sites.

Answer: C

Diff: 2

Type: MC

Page Ref: 30

Skill: A

7) Microscopic granules of silicon dioxide in plant cells are called _____.

- A) ecofacts
- B) phytoliths
- C) features
- D) datums
- E) isotopes

Answer: B

Diff: 2

Type: MC

Page Ref: 38

Skill: R

8) Paleoanthropologists can infer the behaviour of ancient hominids by interpreting the fossilized skeletal remains of ancient hominids; they can also infer the environment of these hominids from

- A) the age of the rocks in which the fossils were found.
- B) the type of sediments in which the remains were deposited.
- C) the types of flora and fauna associated with the hominid fossils.
- D) chemical analyses of the rocks in which the fossils were found.
- E) the types of geological processes to which the remains have been subjected.

Answer: C

Diff: 3

Type: MC

Page Ref: 38

Skill: A

9) The study of the processes that affect the body of an animal following death is called

- A) taphonomy.
- B) fossilization.
- C) paleontology.
- D) paleoanthropology.
- E) site prospection.

Answer: A

Diff: 1

Type: MC

Page Ref: 29

Skill: R

10) Sediment removed from an archaeological excavation unit may be

- A) sifted to find any minute objects missed during excavation.
- B) sifted to ensure it is clean and free of debris.
- C) left near the unit to ensure provenience.
- D) washed and dried.

Answer: A

Diff: 3

Type: MC

Page Ref: 37

Skill: A

11) Living floors are a type of

- A) fossil.
- B) feature.
- C) ecofact.
- D) artifact.
- E) datum.

Answer: B

Diff: 2

Type: MC

Page Ref: 30

Skill: R

12) Relative dating methods

- A) provide an age estimate for a specimen or deposit in relation to another specimen or deposit.
- B) are the only way to determine a realistic age of a specimen or deposit.
- C) provide the best age estimates for fossils of our relatives, the hominids.
- D) are not of much use to either archaeologists or paleoanthropologists.
- E) have been subject to significant advances over the last 50 years.

Answer: A

Diff: 2

Type: MC

Page Ref: 38

Skill: R

13) Which of the following is untrue of the law of superposition?

- A) Stratigraphic analysis is fundamentally based on the law of superposition.
- B) The law of superposition provides a framework for relative date estimates
- C) The law of superposition provides a framework for absolute date determinations
- D) The law of superposition states that younger layers overlay older layers
- E) The law of superposition can be combined with analysis of faunal remains to arrive at relative date estimates

Answer: C

Diff: 2

Type: MC

Page Ref: 38

Skill: R

14) AMS dating provides a number of advantages over tradition radiocarbon dating except

- A) it can not be used on organic material.
- B) it can not date objects more than 80,000 years old.
- C) it needs a small sample of material.
- D) it is very expensive.

E) all of the above

Answer: D

Diff: 3

Type: MC

Page Ref: 43

Skill: R

15) Amino acid racemization

A) is a non-radiometric technique.

B) is applied to volcanic glass.

C) measures heat from electrons trapped in the material.

D) can be applied to ceramics only.

E) has a half-life of 1250 years.

Answer: A

Diff: 2

Type: MC

Page Ref: 46

Skill: R

16) Which of the following is an example of a subsurface technique?

A) Field walking.

B) Field Surveying

C) Test pitting.

D) Aerial photography.

E) Satellite Imagery.

Answer: C

Diff: 2

Type: MC

Page Ref: 34

Skill: R

17) One issue that arises when relative dating using the F-U-N trio is that

A) mineral content of bones reflects mineral content of the groundwater in the area.

B) bones and teeth undergo transformation in chemical composition when buried for long periods.

C) older fossils contain greater amounts of fluorine.

D) older fossils contain smaller amounts of nitrogen.

E) this method does not examine carbon content of fossils.

Answer: A

Diff: 3

Type: MC

Page Ref: 40

Skill: R

18) If you take one gram of carbon-14, half of it will decay in

A) 80 000 years.

B) 1330 million years.

C) 3 billion years.

D) 1480 years.

E) 5730 years.

Answer: E

Diff: 2

Types: MC

Page Ref: 43

Skill: R

2.2 True/False Questions

1) The site formation processes that affect how and where material culture is deposited may be either environmental or cultural in nature.

Answer: TRUE

Diff: 2

Type: TF

Page Ref: 27

Skill: A

2) Middens are of particular interest to archaeologists because they provide a cross-section of material culture.

Answer: TRUE

Diff: 2

Type: TF

Page Ref: 27

Skill: R

3) The term "taphonomy" literally means the study of fossilized hominid remains.

Answer: FALSE

Diff: 3

Type: TF

Page Ref: 29

Skill: R

4) Coffins provide a different burial environment for bodies than does burial directly in the soil.

Answer: TRUE

Diff: 2

Type: TF

Page Ref: 28

Skill: A

5) Non-invasive surface surveying techniques in archaeology can include aerial photography and satellite images.

Answer: TRUE

Diff: 1

Type: TF

Page Ref: 34

Skill: A

6) Ground-penetrating radar is only effective in locating metallic objects that are buried.

Answer: FALSE

Diff: 3

Type: TF

Page Ref: 36

Skill: A

7) Where a newly discovered site is relatively disturbed, the excavation of test pits at intervals across the site might provide a better understanding of the sites extent.

Answer: FALSE

Diff: 3

Type: TF

Page Ref: 35

Skill: R

8) phytoliths (microscopic granules of silicon dioxide found in a plants cells) are formed when plants are harvested using stone tools.

Answer: FALSE

Diff: 3

Type: TF

Page Ref: 38

Skill: R

9) Fluorine is one mineral present in groundwater, therefore the older the fossil the lower its fluorine content.

Answer: FALSE

Diff: 3

Type: TF

Page Ref: 40

Skill: R

10) Potassium-Argon dating can be used to date volcanic rock.

Answer: TRUE

Diff: 3

Type: TF

Page Ref: 47

Skill: R

11) Humans started making ceramics about 50 000 years ago.

Answer: FALSE

Diff: 2

Type: TF

Page Ref: 32

Skill: R

2.3 Short Answer Questions

1) What is the difference between absolute and relative dating?

Answer: Absolute dating measures the actual age of a deposit or specimen, whereas relative dating determines the age of a specimen or deposit relative to a known specimen or deposit.

Diff: 2

Type: SA

Page Ref: 38

Skill: R

2.4 Essay Questions

Explain how researchers can compensate for fluctuating levels of carbon-14 in the atmosphere over time when estimating age using carbon dating.

Answer: Answers will vary.

Diff: 3

Type: E

Page Ref: 43

Skill: A