Geologic Time, Fossils and Planetary Geology — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The geologic time scale divides Earth history into eons, eras, periods and epochs based mainly on**



A the rock and fossil record

B modern weather patterns

C ocean tides

D human calendars

Understand It with Pulse | Flag a mistake

2 **The principle of superposition states that in undisturbed sedimentary layers, the oldest layer is at the**

A surface

B top

C bottom

D middle

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3 **Relative dating gives the**

A temperature of a rock

B depth of a fossil

C order of events without an exact age in years

D exact age in years for every rock

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4 **Absolute dating gives a numerical age, most often by**



A counting rock layers

B measuring fossil size

C weighing a sample

D measuring radioactive decay in minerals

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5 **One half life is the time needed for half of the parent isotope in a sample to**

A decay

B melt

C double

D freeze

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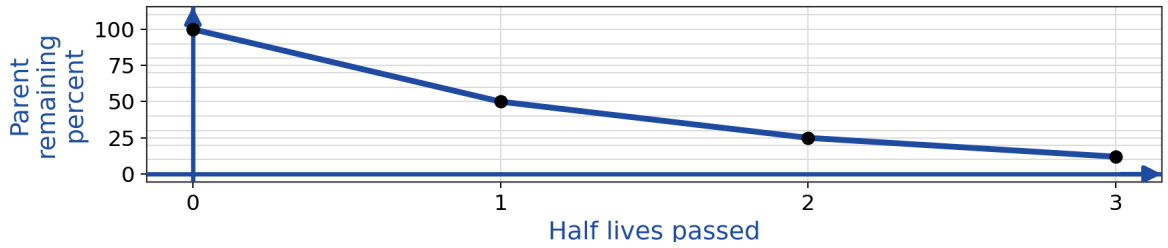
6 **The graph shows the percentage of parent isotope remaining against half lives passed. The percentage remaining after 2 half lives, in percent, is**



- **A** 12
- **B** 25
- **C** 50
- **D** 100

Understand It with Pulse | Flag a mistake

7 **A sample starts with 80 grams of parent isotope. After two half lives, the mass remaining, in grams, is _____**

ANSWER _____

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8 **Carbon 14 dating is most useful for organic material up to about**

A four billion years old

B one million years old only

C tens of thousands of years old

D ten years old

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9 **A fossil is best defined as preserved evidence of**



A a volcanic eruption

B a meteorite impact

C a new mineral

D past life

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10 **A mould fossil is the impression left in sediment after the original organism has**

- A decayed or dissolved
- B melted
- C turned to coal
- D frozen

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11 **A cast fossil forms when a mould is filled with**

- A seawater
- B mineral matter
- C lava
- D ice

Understand It with Pulse | Flag a mistake

12 **Trace fossils such as footprints and burrows show mainly how an organism**

A reproduced

B migrated to space

C moved and behaved

D looked in colour

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13 **An index fossil is useful for dating rock layers because it was**



A rare and lived for a long time

B found in only one place

C never preserved

D widespread but lived for a short time

Understand It with Pulse | Flag a mistake

14 **The fossil record shows that life on Earth has changed over time, with many species**

A appearing and disappearing

B staying exactly the same

C appearing only recently

D never changing at all

Understand It with Pulse | Flag a mistake

15 **A mass extinction is a time when a large number of species disappear over a geologically**

A ice age

B short time

C long slow period only

D single day

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16 **The extinction at the end of the Cretaceous is associated with the loss of the non avian**

A first fish

B first mammals

C dinosaurs

D trilobites

Understand It with Pulse | Flag a mistake

17 **Trilobites are index fossils mainly for the early**



A Cenozoic

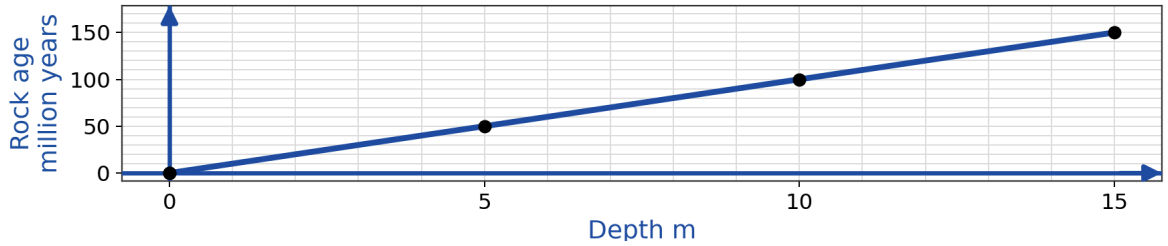
B present day

C future

D Paleozoic

Understand It with Pulse | Flag a mistake

18 **The graph shows rock age against depth in a core sample. The rock age at a depth of 10 metres, in million years, is**



- **A** 100
- **B** 150
- **C** 200
- **D** 50

Understand It with Pulse | Flag a mistake

19 **The planets Mercury, Venus, Earth and Mars are called terrestrial planets because they are mainly**

- **A** made of plasma
- **B** rocky
- **C** gaseous
- **D** icy only

Understand It with Pulse | Flag a mistake

20 **Jupiter, Saturn, Uranus and Neptune are called giant planets because they are much larger than Earth and are mainly**



A liquid water

B metal only

C gas and ice

D solid rock

Understand It with Pulse | Flag a mistake

21 **Impact craters on the Moon are preserved for a long time mainly because the Moon has**

A thick oceans

B strong winds

C active plate tectonics

D almost no atmosphere or running water

Understand It with Pulse | Flag a mistake

22 **Mars shows dry river channels and minerals that form in water, which suggests Mars once had**

A liquid water on its surface

B no atmosphere at all

C only frozen carbon dioxide

D a thick ocean today

Understand It with Pulse | Flag a mistake

23 **Venus has a very hot surface mainly because of a strong**

- A ocean current
- B greenhouse effect
- C magnetic field
- D ice cap

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24 **The asteroid belt lies mainly between the orbits of**

- A Venus and Earth
- B Saturn and Uranus
- C Mars and Jupiter
- D Earth and Mars

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25

Comets develop bright tails when they approach the Sun and their icy material

A freezes

B turns to rock

C stops moving

D vaporizes

Understand It with Pulse

Flag a mistake

ANSWER KEY

1. A
2. C
3. C
4. D
5. A
6. B
7. 20
8. C
9. D
10. A
11. B
12. C
13. D
14. A
15. B
16. C
17. D
18. A
19. B
20. C
21. D
22. A
23. B
24. C
25. D

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