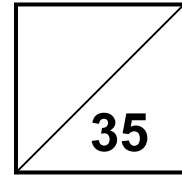




Student Name _____

Class _____



Answer all of the questions on the Scantron (Please **Do Not** make any marks in this test booklet)

1. Alfred Wegner's **Theory of Continental Drift** determined that the continents at one time all fit together to form one large super continent, called Pangaea.. His evidence was their interlocking shapes and ...
 - A. discovery of land bridges connecting the continents
 - B. different trees on different continents
 - C. lower ocean level with islands close together
 - D. similar fossil remains found on different continents

2. Daughter material and parent material refer to the *half-life* parts remaining, in the process of **radiometric dating**, to calculate *the absolute age of rocks*. If the daughter material is 75% and the parent material is 25%, the rock has undergone ...
 - A. 1 half-life
 - B. 2 half-lives
 - C. 3 half-lives
 - D. 4 half-lives

3. Minerals can be identified by using their **physical properties**. The property that identifies the way the mineral breaks is called its ...
 - A. cleavage
 - B. streak
 - C. colour
 - D. lustre

4. While Allison and Rachel were investigating the banks of the river, they discovered a large section that had been eroded away. They were actually observing **stratification**, which identifies ...
 - A. fossils embedded in the rock
 - B. visible layers of different soil types
 - C. soil minerals that have leached
 - D. petroleum traces in the soil

5. A fertile soil is one that can supply nutrients for plant growth. To identify the **different layers** in a particular type of soil, a geologist would look at the ...
 - A. organic components
 - B. mineral content
 - C. humus content
 - D. soil profile

6. **Weathering** can cause catastrophic changes all of a sudden. When water gets into cracks in rock and expands, the rock can break away. The *Frank Slide*, in the Crowsnest Pass, is an example of how this can happen. This form of weathering is called ...
 - A. winter weathering
 - B. frost wedging
 - C. gravitational thrust
 - D. solidification

7. On a field trip to the foothills, the students noticed a tree's roots growing through rock. This *type of weathering* is classified as ...
 - A. physical
 - B. biological
 - C. mechanical
 - D. chemical



8. **Kidney stones** are examples of
- A. mineral deficiency
 - B. vitamin deficiency
 - C. lack of calcium in the bones
 - D. growing crystals in your body
9. When scientists discovered the ridges along the ocean floor, they also found lava coming out of the cracks. This **type of lava** is called ...
- A. pillow lava
 - B. ocean lava
 - C. saltwater lava
 - D. sea-floor lava
10. The **San Diego Zoo** is able to get early warnings of possible earthquakes because ...
- A. they have the best seismic equipment
 - B. animals can sense the start of an earthquake
 - C. scientists believe this area will be hit first
 - D. they are directly over the most active fault
11. Wegener proved that glaciers once existed in the southern hemisphere. He used this **glacial feature** to provide his evidence ...
- A. moraines found
 - B. erratics found
 - C. bedrock abrasions
 - D. ice caves
12. The pressure under the earth's crust can cause **tectonic plates** to move in different ways. A **fault** that causes these plates to move sideways is called a ...
- A. transform fault
 - B. reverse fault
 - C. normal fault
 - D. strike-slip fault
13. There are a number of **volcanoes** that border the outer edges of the Pacific Ocean and are known as ...
- A. Hell's Kitchen
 - B. Ring of Fire
 - C. Rapid Change Zone
 - D. Circle of Death
14. An earthquake or an erupting sea-floor volcano can cause a '**Tsunami**'. In Japanese it means ...
- A. lava flow
 - B. harbour wave
 - C. ash plume
 - D. shaking ground
15. When sedimentary rock is squeezed from the sides and is too brittle to fold, it can break and form into slabs that **move up and over** each other. This is an example of ...
- A. a diverging fault
 - B. folded layering
 - C. a sliding fault
 - D. a thrust fault
16. There are many different aspects and actions that geologists can test to accurately determine the age of a mountain. This aspect might be the best way for an **untrained** geologist to determine the age of a mountain.
- A. syncline
 - B. anticline
 - C. kinds of rocks
 - D. shape of peak
17. **Trilobites** are one of the most famous groups of fossils. They are now extinct. They lived in ...
- A. warm ocean water
 - B. fresh water lakes
 - C. Gobi Desert
 - D. Antarctic Tundra



18. When an organism is buried under many layers of sediment, pressure and heat build up, leaving a thin film of carbon residue forming the outline of the organism on the rock surface. This **residue** is called ...
- A. carbonaceous film
 - B. carbon-dated remains
 - C. petrified residue
 - D. trace fossil residue
19. **Metamorphic** rock is formed as a result of ...
- A. rapidly decreasing temperatures
 - B. extreme temperature fluctuations
 - C. lower pressure and moisture
 - D. high temperature and pressure
20. **Cubic, tetragonal, hexagonal, orthorhombic, monoclinic and triclinic** describe systems of ...
- A. mineral hardness
 - B. synthetic models
 - C. cleavage types
 - D. crystal structure
21. **Synthetic crystals** are manufactured for such things as electronic circuits, credit cards, machines, medicines and communication devices, because natural crystals ...
- A. are too expensive
 - B. are rare
 - C. are too soft
 - D. have impurities
22. Advances in technology, like the magnetometer, led scientists to develop the **theory of sea-floor spreading** because of the....
- A. behavioural patterns of whales
 - B. radar and sonar waves
 - C. magnetic variations at the surface
 - D. magnet reversals on the ocean floor
23. Seismologists use a special machine that measures earthquakes. The fastest of all three types of **seismic waves** are the p waves. They are called ...
- A. principal waves
 - B. pretty waves
 - C. pin waves
 - D. primary waves
24. An earthquake in Japan registers on a **seismograph** in Winnipeg, Manitoba. This occurs because ...
- A. seismographs anywhere will record all earthquakes
 - B. the earth's crust is solid, allowing the surface waves to be recorded anywhere
 - C. the inner core of the earth is liquid
 - D. the outer core of the earth is liquid
25. The **source of an earthquake** can be determined by recording the interval time between the p waves and s waves. Where the earthquake starts from is called the ...
- A. foci
 - B. focus
 - C. shadow zone
 - D. epicenter
26. **Vesuvius** has been a dormant volcano since 1944, but is due for a major eruption. An added danger, besides the major build-up of magma beneath the peak is the discovery of a rock ...
- A. bulge
 - B. plume
 - C. vent
 - D. plug



27. When **older rock ends up on top of younger rock** the type of mountains formed are called ...
- A. thrust mountains
 - B. fault mountains
 - C. block mountains
 - D. fault block mountains
28. Mountain formations that undergo **more than one process** are called ...
- A. transform
 - B. compound
 - C. multi-faulted
 - D. complex
29. When older rock ends up on top of younger rock the **type of mountains** formed are called ...
- A. thrust mountains
 - B. fault mountains
 - C. block mountains
 - D. fault block mountains
30. The **preserved remains** (even the soft parts) of a plant or animal can most likely be found in ...
- A. Burgess Shale
 - B. sediment
 - C. gemstones
 - D. amber
31. An important discovery in Glacier National Park, Montana, provided evidence that **dinosaurs were related to birds**. The 14 year-old boy found a ...
- A. Velociraptor
 - B. Trilobite
 - C. Albertosarus
 - D. Bambiraptor
32. When an organism is buried under many layers of sediment, pressure and heat build up, leaving a thin film of **carbon residue** forming the outline of the organism on the rock surface. This residue is called ...
- A. petrified residue
 - B. trace fossil residue
 - C. carbon-dated remains
 - D. carbonaceous film
33. When an organism falls into soft sediment, its hard parts dissolve, leaving **a cavity** called a ...
- A. cast
 - B. trace layer
 - C. chamber
 - D. mould
34. According to the **Geologic Time Scale**, dinosaurs appeared in this period.
- A. Permian
 - B. Cretaceous
 - C. Jurassic
 - D. Triassic
35. Most drilling operations would not be possible unless these types of **drills** were used.
- A. carbon
 - B. forged steel
 - C. tungsten
 - D. diamond