

Test: Earth Science NCE - HS

Question 1 of 75

What tetrahedral hydrocarbon is the second most abundant greenhouse gas?

- A) Butane
- B) Nitrous Oxide
- C) Carbon Dioxide
- D) Methane

Question 2 of 75

What is the name of a tornado occurring over water?

- A) Waterspout
- B) Waternado
- C) Water tower
- D) Hurricane

Question 3 of 75

Which of the following is an ore for iron?

- A) Hematite
- B) Bauxite
- C) Galena
- D) Ilmenite

Question 4 of 75

What is the study of rocks called?

- A) Igneology
- B) Stonology
- C) Petrology
- D) Minerology

Question 5 of 75

Which geologic period had a namesake “explosion” in the variety and amount of life on Earth?

- A) Permian
- B) Cambrian
- C) Devonian
- D) Ordovician

Question 6 of 75

Which process that occurs at convergent plate boundaries involves a dense tectonic plate sinking below another plate and being pulled into the mantle?

- A) Convection
- B) Subduction
- C) Strike-slip fault
- D) Seafloor Spreading

Question 7 of 75

Which mineral was used in watches because it exhibits piezoelectricity, meaning it develops an electric charge due to mechanical stress?

- A) Fluorite
- B) Calcite
- C) Apatite
- D) Quartz

Question 8 of 75

Karst topography is associated with which of the following?

- A) Numerous moraines, tarns, and eskers
- B) Deposits of limestone and large numbers of caves
- C) Mountains created by the movement of tectonic plates
- D) The highest snowfall amounts in the 48 contiguous states

Question 9 of 75

The lowest point on a land surface not covered by liquid water can be found where?

- A) Under a glacier in Antarctica
- B) Ngorongoro Crater
- C) Death Valley
- D) The shores of the Dead Sea

Question 10 of 75

Orographic lifting results in which of the following?

- A) The creation of drumlins
- B) The lowest air pressures recorded on earth
- C) Adiabatic cooling in air masses
- D) Hills being raised up from a valley floor

Question 11 of 75

Isostatic rebound can result when which of the following events occurs?

- A) Mines are dug
- B) Meteorites strike
- C) Volcanoes erupt
- D) Glaciers retreat

Question 12 of 75

What black volcanic glass forms from the rapid cooling of lava?

- A) Pumice
- B) Granite
- C) Scoria
- D) Obsidian

Question 13 of 75

Though not in Tornado Alley, which of these four states experiences far more tornadoes in an average year than the other three states combined?

- A) Alaska
- B) New York
- C) Oregon
- D) Alabama

Question 14 of 75

June 1-November 30 corresponds to which of the following periods?

- A) An annual upsurge in volcanism in Yellowstone National Park
- B) The perihelion of the earth
- C) The seven months during which almost all tornadoes occur in the USA
- D) The Atlantic Ocean hurricane season

Question 15 of 75

What edge of the continent is submerged under the ocean descends to a break then to the continental slope?

- A) Continental wall
- B) Continental shelf
- C) Continental sliding
- D) Continental cliff

Question 16 of 75

What mineral class do Feldspar and Quartz fall under?

- A) Sulfides
- B) Silicates
- C) Carbonates
- D) Oxides

Question 17 of 75

Which of the following is the hardest material?

- A) Talc
- B) Corundum
- C) Diamond
- D) Copper

Question 18 of 75

What lines mark areas of equal pressure on a weather map?

- A) Isochores
- B) Isotemps
- C) Isoroles
- D) Isobars

Question 19 of 75

Asteroids begin burning up in what layer of the atmosphere below the thermosphere?

- A) Mesosphere
- B) Troposphere
- C) Stratosphere
- D) Exosphere

Question 20 of 75

Which of the following is not a step in the nitrogen cycle?

- A) Assimilation
- B) Convergence
- C) Ammonification
- D) Nitrogen fixation

Question 21 of 75

Rocks that have high silica content are classified as what?

- A) Ultramafic
- B) Felsic
- C) Intermediate
- D) Mafic

Question 22 of 75

Which of Steno's laws states that surface layers of rock are younger than deeper rock layers?

- A) Law of cross-cutting relationships
- B) Law of original horizontality
- C) Law of lateral continuity
- D) Law of superposition

Question 23 of 75

What is a type of wind-deposited sediment?

- A) Loam
- B) Spline
- C) Loess
- D) Hex

Question 24 of 75

Which of the following was an early irrigation device?

- A) Euler diverter
- B) Abbasid wheel
- C) Archimedes' screw
- D) Democritus' transporter

Question 25 of 75

Harry Hess described what process that creates new oceanic crust?

- A) Abyssal extension
- B) Seafloor spreading
- C) Benthic opening
- D) Crustal movement

Question 26 of 75

What type of fog forms when warm, moist air moves over the ground?

- A) Convection
- B) Precipitation
- C) Radiation
- D) Advection

Question 27 of 75

Lucy was a member of what genus of hominins?

- A) Paranthropus
- B) Australopithecus
- C) Homo
- D) Pan

Question 28 of 75

What process results in the creation of mountains?

- A) Creogeny
- B) Pleiogenesis
- C) Mounogenesis
- D) Orogeny

Question 29 of 75

What Yellowstone Park geyser is named for its predictable eruptions?

- A) Old Reliable
- B) Young Faithful
- C) Young Reliable
- D) Old Faithful

Question 30 of 75

Which of these is something that can be seen or experienced each year in the state of New York?

- A) Chinook winds
- B) The world's highest tides
- C) The constellation crux
- D) Lake effect snow

Question 31 of 75

A limnic eruption takes place when which of the following occurs?

- A) Toxic gases are released from a lake
- B) Pyroclastic flows overwhelm all vegetation
- C) Magma is released slowly from a shield volcano
- D) A caldera collapses

Question 32 of 75

Sunny skies are most associated with which of these types of clouds?

- A) Stratus
- B) Nimbostratus
- C) Cumulus
- D) Cumulonimbus

Question 33 of 75

Sapphires and rubies are two gem varieties of which material?

- A) Graphite
- B) Quartz
- C) Corundum
- D) Humus

Question 34 of 75

The most powerful hurricane ever recorded, Hurricane Patricia, at its peak had maximum sustained winds of what intensity?

- A) 155 mph
- B) 300 mph
- C) 215 mph
- D) 100 mph

Question 35 of 75

Which of these phenomena takes place in the Atlantic Ocean?

- A) El Nino
- B) Typhoons
- C) Humboldt Current
- D) Gulf Stream

Question 36 of 75

Where could you find the asthenosphere?

- A) Wherever rainfall is sufficient to create rain forests
- B) Above the stratosphere, but below the exosphere
- C) Both sections of the earth's core
- D) The upper portion of the mantle

Question 37 of 75

Which of these eruptions rated highest on the Volcanic Explosivity Index?

- A) Tambora in 1815
- B) Kilauea in 1977
- C) Mount St. Helens in 1980
- D) Vesuvius in 79 AD

Question 38 of 75

Which of these sites is where widespread fracking has taken place in recent years?

- A) Permian Basin
- B) Great Basin
- C) Florida Panhandle
- D) Ozark Mountains

Question 39 of 75

The science of determining Earth's orientation in space, geometric shape, and gravitational strength is known by which term?

- A) Geodesy
- B) Stratigraphy
- C) Speleology
- D) Meteorology

Question 40 of 75

Which of these is an example of an escarpment?

- A) The Bonneville Salt Flats
- B) The Allegheny Front
- C) The Outer Banks
- D) The Adirondacks

Question 41 of 75

A tombolo can be considered a small type of which landform?

- A) A cuesta
- B) An atoll
- C) An isthmus
- D) An inselberg

Question 42 of 75

Parallel faults are found on either side of which of these relatively low-lying landforms?

- A) Cordillera
- B) Mesa
- C) Butte
- D) Graben

Question 43 of 75

The majority of the iron ore mined in the USA comes from which state?

- A) Massachusetts
- B) Florida
- C) Hawaii
- D) Minnesota

Question 44 of 75

The Cocos and Nazca are tectonic plates that can be found under which of these places?

- A) Eastern Pacific Ocean
- B) North Atlantic Ocean
- C) Africa
- D) Asia

Question 45 of 75

Which of these mountain ranges is geologically older than the others?

-
- A) Himalayas
 - B) Alps
 - C) Andes
 - D) Blue Ridge

Question 46 of 75

Despite not being located near the edge of a tectonic plate, which of these regions of the USA is susceptible to major earthquakes, including one that struck in 1812?

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- A) Northeastern Colorado
 - B) Southeastern Missouri
 - C) Northern Wisconsin
 - D) Southern Ohio

Question 47 of 75

Which of the following is a liquid fossil fuel?

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- A) Petroleum
 - B) Wind
 - C) Solar
 - D) Coal

Question 48 of 75

What theory proposed by H.F. Reid describes how earthquakes undergo the namesake effect in strain energy?

-
- A) Spring recover theory
 - B) Bounce back theory
 - C) Snap back theory
 - D) Elastic rebound theory

Question 49 of 75

What continent merged with Euramerica to form Pangea?

- A) Rodinia
- B) Gondwana
- C) Zealandia
- D) Baltica

Question 50 of 75

Who proposed the theory of continental drift?

- A) Alfred Wegener
- B) Heinrich Harrer
- C) James Hutton
- D) Arthur Holmes

Question 51 of 75

An abrupt change in the way seismic waves travel occurs at what discontinuity between the core and mantle?

- A) Potential discontinuity
- B) Bullen discontinuity
- C) Gutenberg Discontinuity
- D) Mohorovicic discontinuity

Question 52 of 75

Sheet and rill are types of which process?

- A) Oxidation
- B) Calving
- C) Erosion
- D) Orogeny

Question 53 of 75

Eutrophication can be caused by an excess of what element?

- A) Phosphorus
- B) Oxygen
- C) Aluminum
- D) Zinc

Question 54 of 75

What type of well forms from the pressure of an aquifer, and so does not require a pump?

- A) Injectable
- B) Driven
- C) Artesian
- D) Bored

Question 55 of 75

In what formation does strata curve upward to form a ridge?

- A) Syncline
- B) Polar cline
- C) Anticline
- D) Monocline

Question 56 of 75

Tektites are generally composed of what substance?

- A) Steel
- B) Glass
- C) Iron
- D) Soil

Question 57 of 75

What is the term for a rock that cuts through another rock vertically?

- A) Dike
- B) Interior
- C) Lacolith
- D) Pluton

Question 58 of 75

What volcanic material includes subclasses like ash and bombs?

- A) Plankton
- B) Tephra
- C) Blocks
- D) Lapilli

Question 59 of 75

What is the uppermost soil horizon, assuming all horizons are present?

- A) A
- B) R
- C) E
- D) O

Question 60 of 75

Which climate oscillation typically lasts between 30 and 60 days?

- A) Meridional oscillation
- B) Kelvin-Stokes oscillation
- C) Southern oscillation
- D) Madden-Julian oscillation

Question 61 of 75

The population of anchovies in Peru was drastically reduced because of what type of event?

- A) ENSO
- B) ATWA
- C) PCUE
- D) DWSE

Question 62 of 75

Diagenesis occurs to form what type of rock?

- A) Metamorphic
- B) Sedimentary
- C) Igneous
- D) Plutonic

Question 63 of 75

What type of particle transfer occurs when particles are carried and then transported back to the surface?

- A) Suspension
- B) Creep
- C) Reptation
- D) Saltation

Question 64 of 75

Ekman spirals are patterns found where?

- A) Sand
- B) Ocean currents
- C) Crystals
- D) Lava

Question 65 of 75

What mineral deposits project down from the roofs of caves?

- A) Stalactites
- B) Statacites
- C) Statamites
- D) Stalagmites

Question 66 of 75

What law states that coal's rank varies with depth?

- A) Lewis's Law
- B) Spencer's Law
- C) Warmire's Law
- D) Hilt's law

Question 67 of 75

Soil, rock, and debris fuse that have been fused together into tubes when struck by lightning is given what name?

- A) Fulgurite
- B) Delafossite
- C) Astrapite
- D) Ettringite

Question 68 of 75

What effect describes the tendency of two cyclones close the distance of their low-pressure areas?

- A) Zeeman effect
- B) Fujiwara effect
- C) Stark effect
- D) Magnus effect

Question 69 of 75

What Harvard professor of geology names a prehistoric lake that covered most of Canada?

- A) Louis Agassiz
- B) Donhee Ham
- C) J. Michael Bishop
- D) Walter Gilbert

Question 70 of 75

What element's presence in soil gives the Alvarez hypothesis credence that an asteroid caused the K-T extinction event?

- A) Iridium
- B) Tantalum
- C) Hydrogen
- D) Osmium

Question 71 of 75

What mineral at the top of Bowen's discontinuous branch forms a green gem called peridot?

- A) Actinolite
- B) Glauconite
- C) Olivine
- D) Epidote

Question 72 of 75

Who popularized the term "uniformitarianism" in his Principles of Geology?

- A) Charles Lyell
- B) William Whewell
- C) James Hutton
- D) George Cuvier

Question 73 of 75

Bajadas are collections of what features?

- A) Floodplains
- B) River deltas
- C) Alkali flats
- D) Alluvial fans

Question 74 of 75

What volcanic pipes, sometimes paired with maars, can bring mineral deposits up to the surface?

- A) Diatremes
- B) Nyos
- C) Bayuda
- D) Eifel

Question 75 of 75

What type of basin does not allow water to flow to external bodies of water?

- A) Limited
- B) Endorheic
- C) Center
- D) Noncoastal