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Science Bowl mixed

1. Earth and Space Multiple Choice: The igneous rock or sedimentary rock that a metamorphic rock is formed from is known as?
   1. Father rock
   2. Source rock
   3. Parent Rock
   4. Origin Rock

Answer: y. Parent Rock

1. Physics Short Answer: Which of the following two are not true.
   * 1. The Grand Unified Theory states that all of the fundamental forces of the universe are one big force at one point in time
     2. A parallax is the distance of one arc sec in the sky
     3. Polarized light compose of light waves that are oriented into two different directions

Answer: 1 and 3

1. Earth and Space Short Answer: Streams that restores water from the inflow of groundwater in the streambed are known as?

Answer: Gaining streams

1. Earth and Space Multiple Choice: The star clusters Hyades and Pleiades are star clusters found in the constellation Taurus. These clusters are classified as.
   1. Globular cluster
   2. Beehive cluster
   3. Intermediate cluster
   4. Open cluster

Answer: z. Open cluster

1. Physics Short Multiple choice: Which of the following does not exist at 10-6 sec after the Big Bang of the universe?
   1. Photon
   2. Electron
   3. Neutron
   4. Baryon

Answer: y. Neutron

1. Earth and Space Short answer: Out the following five, which are not formations caused by glaciers?
   * 1. Strata
     2. Tarn
     3. Aretes
     4. Permafrost
     5. Horn

Answer: 1 and 4

1. Physics Multiple Choice: the number of vibrations that occur in one second from a wave is called
   1. Amplitude
   2. Frequency
   3. Period
   4. Wavelength

Answer: x. Frequency

1. Earth and Space Multiple choice: Which of the following is not a semiprecious gem?
   1. Spinel
   2. Zircon
   3. Topaz
   4. Opal

Answer: z. Opal

1. Earth and Space: Short Answer: Of the following five statements, which are true?
   * 1. The convection zone of a star 1.3 times of the sun is below the radiation zone
     2. The convection zone of a star 1 solar mass is located above the radiation zone
     3. Large stars uses the proton-proton chain to transfer heat
     4. Sun-like star uses the CNO cycle to transfer heat
     5. Brown dwarfs transfer heat through the radiation zone before the conduction zone

Answer: 1 and 2

1. Earth and Space Short Answer: what rock is the extrusive version of the ultramafic peridotite

Answer: Komatite

1. Earth and Space Short Answer: The Doppler effect of distant galaxy shows them in a red hue and is providing evidence that the universe is expanding. What is the term use to find the rate of this expansion?

Answer: Hubble’s Constant (accept Hubble’s law)

1. Earth and Space Short answer: Volcanic material ejected from eruption in a violent way that comes in different sizes is called what?

Answer: Pyroclastic rock or material (Do not accept volcanic bomb)

1. Physics Short answer: When the universe is born, which particle accounts for the extra matter over the opposite antimatter?

Answer: X boson

1. Earth and Space Short answer: Which of the following four is true for felsic igneous rocks?
   * 1. Potassium feldspar is a felsic rock
     2. Felsic rock contain low silica content and high potassium and sodium
     3. Felsic rock melt at relatively low temperature compare to other rocks
     4. Granite is the intrusive rock of the Felsic rock Diorite

Answer: 1 and 3

1. Physics Multiple Choice: Which of the following is not a theoretical fate of the universe
   1. Big Rip
   2. Modified Big Chill
   3. Big Crunch
   4. Big Twist

Answer: z. Big Twist

1. Earth and Space Short answer: The largest canyon in the entire solar system is located in Mars, what is its name?

Answer: Valles Marineris

1. Earth and Space Short answer: List the following 4 by coolest to hottest.
   * 1. Lightning on Earth
     2. Earth’s Core
     3. Photosphere of the sun
     4. Corona of the Sun

Answer : 2,3,1,4

1. Earth and Space Short answer: Which planet has the greatest axel tilt.

Answer: Venus (177.4 degrees)