

Physical Geography Questions for CDS Exam

Physical Geography Quiz 4

Direction : Study the following question carefully and choose the right answer.

1. During the recent Venus transit (June 2012) bracket, the planet appeared as a tiny black circle moving on the Sun. The black colour on the Sun is because the planet

A. is black in colour

- B. obstructed all light from the Sun
- C. was invisible due to bright rays from the Sun
- D. behaved as a black hole during its transit

2. The waves that help scientists to understand the internal structure of the Earth are

A. Primary waves B. Secondary waves C. Surface waves

D. Longitudinal waves

3. Which one among the following is called terrestrial planet

A. Mercury B. Jupiter C. Saturn D. Uranus

4. Which one among the following is not an igneous rock?

A. Granite B. Basalt C. Gabbro D. Gneiss

5. If the time of a place located on 1650 E meridian is 11:00 pm on Sunday, what would be the time at the place located on 1650 W meridian?

A. 11:00 pm on Sunday B. 12:00 noon on Sunday C. 1:00 am on Sunday

D. 11:00 pm on Saturday

6. Which one among the following statements about the International Date Line is not correct?

A. The international Date Line is largely based on the 1800 meridian

B. The difference in time between the places just either side of the International Date Line is almost 1 day

C. The difference in time to the extent of 1 day on either side of the International Date Line is caused by inclined axis of the Earth

D. The International Date Line mostly passes through the Pacific Ocean

7. 'Global Dimming' means

- A. Gradual increase of the temperature of ionosphere
- B. Gradual loss of biodiversity hot spots
- C. Gradual reduction in the amount of global direct irradiance at the Earth surface

D. Gradual increase in the melting of ice in Polar Regions

8. Oil is found in petroliferous rock. Which one among the following structures demonstrates an ideal trap?

A. Horizontal structure B. Fault structure C. Synclinal structure

D. Anticline structure

9. Which one among the following statements is not correct?

A. Solar noon occurs simultaneously at locations with the same longitude

B. One meridian, which is directly under the Sun, experiences solar noon at a given time

C. Places having same longitude experience solar noon at different times

D. Solar noon occurs at different times at locations with the same latitude

10. Which parts of the Earth's surface experience least variation in incoming solar radiation throughout the year?

A. Poles B. Equatorial regions C. Tropics of Cancer and Capricorn

D. Arctic and Antarctic circles



Correct Answers:

1	2	3	4	5	6	7	8	9	10
В	В	А	D	D	С	С	В	С	В

Explanations:

1.

The black colour of the Sun is because the planet obstructed all light from the Sun.



For the complete information kinldy visit given link http://www.space.com/16024-venus-transit-2012-skywatchers-rejoice.html

2.

Secondary Waves help scientists to understand the internal structure of the Earth. This is because Secondary Wave does not propagate through a fluid or a gas because a fluids and gases cannot transmit a shear stress. S-waves travel slower than P-waves and also called Shear waves because they don't change the volume of material through which they propagate, they shear it. S-waves are transverse waves because they vibrate the ground in the direction 'transverse' or perpendicular, to the direction that the wave is travelling.



3.

Within the solar system, the terrestrial planets are the inner planets closest to the sun. Terrestrial planet is also known as Earth- like planet. Earth's solar system has four terrestrial planets-Mercury, Venus, Earth and Mars. Only one terrestrial planet, Earth, is known to have an active hydrosphere. A terrestrial planet, telluric planet or rocky planet is composed primarily of silicate rocks or metals.

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4.

Gneiss rock is a Metamorphic rock.

Rock is a naturally occurring solid aggregate of minerals or mineraloids. There are mainly three types of rocks:

(1). Igneous rocks are formed through the cooling and solidification of magma or lava. It may form with or without crystallization, either below the surface as intrusive (plutonic) rocks or on the surface as extrusive (volcanic) rocks. This magma can be derived from partial melts of existing rocks in either a planet's mantle or crust. Typically, the melting is caused by one or more of three processes: an increase in temperature, a decrease in pressure, or a change in composition.

(2). Metamorphic rocks arise from the transformation of existing rock types, in a process called metamorphism, which means 'change in form'. The original rock (protolith) is subjected to heat (temperatures greater than 150 to 200 °C) and pressure (1500 bars), causing profound physical and/or chemical change. The protolith may be a sedimentary rock, an igneous rock or another older metamorphic rock.

(3). Sedimentary rocks are types of rock that are formed by the deposition and subsequent cementation of that material at the Earth's surface and within bodies of

water. Sedimentation is the collective name for processes that cause mineral and/or organic particles (detritus) to settle in place. The particles that form a sedimentary rock by accumulating are called sediment. Before being deposited, the sediment was formed by weathering and erosion from the source area, and then transported to the place of deposition by water, wind, ice, mass movement or glaciers, which are called agents of denudation. Sedimentation may also occur as minerals precipitate from water solution or shells of aquatic creatures settle out of suspension.

5.

The International Date Line (IDL) is an imaginary line of longitude on the Earth's surface located at about 180 degrees east (or west) of the Greenwich Meridian.

6.

The International Date Line (IDL) is an imaginary line on the surface of the Earth that runs from the north pole to the south pole and demarcates the change of one calendar day to the next. It passes through the middle of the Pacific Ocean, roughly following the 180° line of longitude but deviating to pass around some territories and island groups.

The Question Bank

7.

Global dimming is the gradual reduction in the amount of global direct irradiance at the Earth's surface that was observed for several decades after the start of systematic measurements in the 1950s. The effect varies by location, but worldwide it has been estimated to be of the order of a 4% reduction over the three decades from 1960–1990. However, after discounting an anomaly caused by the eruption of Mount Pinatubo in 1991, a very slight reversal in the overall trend has been observed.

Global dimming is thought to have been caused by an increase in particulates such as sulfate aerosols in the atmosphere due to human action.

It has interfered with the hydrological cycle by reducing evaporation and may have reduced rainfall in some areas. Global dimming also creates a cooling effect that may have partially counteracted the effect of greenhouse gases on global warming. In basic terms, less sunlight is reaching the Earth because of visible air pollution, which is reflecting the light back into space.

8.

Fault structure: In geology, a fault is a planar fracture or discontinuity in a volume of rock, across which there has been significant displacement as a result of rock mass movement. Large faults within the Earth's crust result from the action of plate tectonic forces, with the largest forming the boundaries between the plates, such as subduction zones or transform faults. Energy release associated with rapid movement on active faults is the cause of most earthquakes.

9.

When the prime meridian is directly under the Sun i.e., the 00 meridian is directly on the 12:00 noon mark, this means that, at this instant, the Sun is at the highest point of its path in the sky in Greenwich, England.

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10.

Equatorial regions of the Earth's surface experience least variation in incoming solar radiation throughout the year.

