

UPSC CURRENT AFFAIRS MCQS 01-12-2024

1. Consider the following statements, with reference to core of earth.

1. The outer core is in solid state, while inner core is in liquid state.
2. The density of earth at edges of core is comparatively higher than density at centre of core.
3. The core is composed of heavy materials like nickel & iron named as 'nife' layer.

How many of the above statements is/are correct?

- (A) Only one
- (B) Only two
- (C) All three
- (D) None

Answer: (A)

Explanation: The outer core is in liquid state & inner core is in solid state. Hence, statement 1 is incorrect.

The density of material at core boundary is around 5.5g/cm³ and at centre the density is 13g/cm³. Hence, statement 2 is incorrect.

The core is composed of heavy materials like nickel & iron named as 'nife' layer. Hence statement 3 is correct.

2. Consider the following statements:

1. Earthquakes are only generated by sliding of rocks along fault plane.
2. Stretching & squeezing of rock is caused by P -waves.
3. S-waves can travel only through solids and are lost in liquids and gases.

How many of the above statements is/are correct?

- (A) Only one
- (B) Only two
- (C) All three
- (D) None

Answer: (B)

Explanation: Explanation: Earthquakes are also caused by mining, volcanoes or explosion etc. Hence, statement 1 is incorrect.

P-waves vibrate parallel to the direction of wave. This exerts pressure on material in direction of propagation causing stretching and squeezing of materials. Hence, statement 2 is correct.

S-waves can travel only through solids & are lost in liquids and gases. Hence, statement 3 is also correct.

3. During volcanic eruption deposition of lava in anticlines and synclines of folded mountains accounts for formation of:

- (A) Phacolith
- (B) Lapolith
- (C) Batholith
- (D) Lacolith

Answer: (A)

Explanation: A wavy mass of intrusive rocks found at base of synclines and at top of anticline in folded igneous mountains. Such wavy materials having definite conduit to source beneath in form of magma chambers called as phacoliths. Hence, option (a) is correct.

4. Which of the following statements regarding measurement of earthquakes are correct?

- (A) The point directly above the focus on the surface is called epicentre. It is the first point to observe the waves.
- (B) The Intensity scale relates to the amount of damage caused.
- (C) The Richter scale relates to the energy released during quake.
- (D) All statements are correct

Answer: (D)

Explanation: The point where energy is released is called focus of an earthquake also known as hypocentre. The point nearest to focus is called epicentre. It is first one to experience the waves. It is a point directly above the focus. The earthquakes events are scaled either according to magnitude or intensity of shock. The Intensity scale relates to the amount of damage caused. The Richter scale relates to the energy released during quake. Hence, all statements are correct.



5. Consider the following pairs:

1. Vosges	Block Mountains
2. Andes	Young Folded Mountains
3. Girnar	Residual Mountains
4. Mt. Popa	Volcanic Mountains

How many pairs are correctly matched?

- (A) Only one pair
- (B) Only two pairs
- (C) Only three pairs
- (D) All four pairs

Answer: (D)

Explanation: Block Mountains were formed due to faults caused by tensional forces. For eg. Vosges (Europe), Black Forest (Germany).

Folded Mountains are formed due to folding of sedimentary rock strata. For eg. Alps, Rockies, Himalayas.

Volcanic Mountains are formed due to volcanic activity. For eg. Mt. Fuji Yama (Japa), Mt. Popa (Myanmar).

Residual Mountains are formed due to erosion by different agencies such as river, wind, glacier etc. For eg. Vindhya, Rajmahal, Girnar etc. Hence, all are correctly matched.