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Q.1) Consider the following statements with respect to 'Sunda Trench'

- 1. It is an oceanic trench located near Sumatra
- 2. It is the deepest trench in the Indian Ocean

Select the correct code:

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.1) Solution (c)

The Sunda Trench, earlier known as and sometimes still indicated as the Java Trench, is an oceanic trench located in the Indian Ocean near Sumatra, formed where the Australian-Capricorn plates subduct under a part of the Eurasian Plate.

It is 3,200 kilometres (2,000 mi) long. Its maximum depth 7,725, about 320 km south of Yogyakarta), is the deepest point in the Indian Ocean. The trench stretches from the Lesser Sunda Islands past Java, around the southern coast of Sumatra on to the Andaman Islands, and forms the boundary between Indo-Australian Plate and Eurasian plate (more specifically, Sunda Plate).

The trench is considered to be part of the Pacific Ring of Fire as well as one of a ring of oceanic trenches around the northern edges of the Australian Plate.

Mount Anak Krakatau located in the middle of the Sunda Strait that divides Sumatra and Java caused the latest Indonesia tsunami.

One of the largest and most destructive tsunamis ever recorded has also been caused by the Anak Krakatau volcano. In August 26, 1883, after the explosion and collapse of the volcano of Krakatoa (Krakatau), waves that reached 135 feet were generated, destroying coastal towns and villages along the Sunda Strait in both the islands of Java and Sumatra, killing 36,417 people.

It is also believed that the destruction of the Minoan civilisation in Greece was caused in 1490 B.C. by the explosion/collapse of the volcano of Santorin in the Aegean Sea

Source: <u>https://www.thehindu.com/sci-tech/science/watch-how-a-volcanic-eruption-</u> causes-a-tsunami/article25813020.ece

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Q.2) Consider the following statements with respect to 'Storheia'

- 1. It is an active volcano mountain
- 2. It is located in Sweden

Select the correct code:

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.2) Solution (d)

Norway would build a wind park in an area used for reindeer grazing despite UN calls to suspend the project to study the impact on the indigenous herders' livelihoods.

Storheia is the highest mountain in Bymarka in the municipality of Trondheim in Trøndelag county, Norway.

Source: <u>https://www.thehindu.com/news/international/norway-to-build-wind-farm-amid-concerns-about-reindeer/article25808880.ece</u>

Q.3) Consider the following statements with respect to 'Cities Investment to Innovate, Integrate and Sustain (CITIIS) Challenge'

- 1. It will identify top projects in 15 of the 100 selected smart cities.
- 2. A Loan of EUR 100 million would be extended by L'Agence Française de Développement (AFD) to selected CITIIS projects in the form of grant.

Select the correct statements

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.3) Solution (c)

An all-India Challenge named CITIIS (Cities Investments to Innovate Integrate and Sustain) was launched on July 9, 2018 in partnership with Agence Française de Développement (AFD)

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and European Union. A Loan of EUR 100 million will be extended by Agence Française de Développement (AFD), which shall be given as a grant to Smart Cities for implementation of 15 innovative projects selected through the All-India Challenge. The projects would be in four sectors- sustainable mobility, public open spaces, urban governance & ICT and social and organizational innovation in low-income settlements. Technical support with global expertise will be provided for preparation and implementation of selected demonstrative projects.

Q.4) Consider the following statements with respect to 'Timberlines'

- 1. It is the edge of the habitat at which trees are capable of growing
- 2. Global warming is causing timberlines to move upward

Select the correct code:

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.4) Solution (c)

Trees grow all over the world, in many different types of weather. But above certain elevations, trees just can't grow. Think of it like this: someone draws a horizontal line on a mountainside; above that line, there are no trees. This imaginary line on the Earth is called the timberline, or the tree line. The timberline is usually a point where there isnt enough air, heat, or water to keep trees alive.

The cold climes on high-altitude mountain tops make it usually difficult for trees to grow above the timberline (the last canopy forests on the mountains). Though global warming is changing this in many of the world's high mountains and causing timberlines to move upward, the eastern Himalaya may be an exception.

Timberlines, the uppermost limit of canopy forests that gradually gives way to the treeline (beyond which trees do not grow) are limited by climate: factors including low temperatures and high winds on mountain tops prevent woody tree growth higher up. Timberlines, therefore, serve as indicators of climate change.

Source: <u>https://www.thehindu.com/sci-tech/energy-and-environment/sikkims-highest-forest-zone-could-get-denser/article25807509.ece</u>

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Q.5) The 'Strait of Gibraltar' is between

- a) Morocco and Spain
- b) Tunisia and Italy
- c) France and England
- d) Denmark and Germany

Q.5) Solution (a)

The Strait of Gibraltar is a narrow strait that connects the Atlantic Ocean to the Mediterranean Sea and separates Gibraltar and Peninsular Spain in Europe from Morocco and Ceuta (Spain) in Africa.

