

**Q: Consider the following statement regarding Major Non- NATO status:**

1. It was first created in 1987.
2. US recently terminated the designation of Afghanistan as a major non-NATO ally
3. Taiwan is not treated as an MNNA.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- The Major Non-NATO (MNNA) status was first created in 1987.
- With Afghanistan's status rescinded, the US will have 18 major non-NATO allies.
- They are Argentina, Australia, Bahrain, Brazil, Colombia, Egypt, Israel, Japan, Jordan, Kuwait, Morocco, New Zealand, Pakistan, the Philippines, Qatar, South Korea, Thailand and Tunisia.
- Taiwan is treated as an MNNA, without formal designation as such.

**Q: Consider the following statement regarding Avalanche Monitoring Radar:**

1. It is installed in Himachal Pradesh.
2. This radar has the capability to detect avalanches within three seconds of their triggering.
3. This radar uses a series of short micro wave pulses.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: b

Explanation:

- The Indian Army and the Defence Geoinformatics and Research Establishment (DGRE) have jointly installed the Avalanche Monitoring Radar, first of its kind in India, in north Sikkim.
- This radar has the capability to detect avalanches within three seconds of their triggering and will assist in saving valuable life of troops and civilians as also vehicles in super high altitude areas.
- This radar uses a series of short micro wave pulses which are scattered at the target and can detect an avalanche in less than three seconds.
- The radar is also linked to an alarm system enabling automatic control and warning measures in case an avalanche is triggered.

**Q: Consider the following statement regarding International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA):**

1. It is a legal binding comprehensive agreement of Food and Agriculture Organization of the United Nations.
2. The treaty provides solutions to achieve food and nutritional security.

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is a legally binding comprehensive agreement adopted in November, 2001 at Rome during the 31st session of Food and Agriculture Organization of the United Nations, which entered into force on June 29, 2004 and currently has 149 Contracting Parties, including India.
- The treaty provides solutions to achieve food and nutritional security as well as climate resilient agriculture. Countries are inter-dependent for PGRFA and consequently a global order is essential to facilitate access and benefit sharing.

**Q: Consider the following statement regarding the impact of Sea-Floor spreading rate:**

1. Inject more CO<sub>2</sub> into the water.
2. Influence Sea-level.
3. Majority of the mid-ocean ridges are getting slowed down.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: d

Explanation:

- Scientists have long known that seafloor spreading rates impact CO<sub>2</sub> levels.
- Faster spreading plates have more volcanic activity and inject more CO<sub>2</sub> into the water, some of which eventually ends up in the atmosphere.
- They also influence sea levels. When plates spread rapidly, the entire base of the seafloor rises, as do sea levels. But during slow movement, the base and sea levels fall as the crust material cools.
- Using magnetic records of the seafloor, available in their complete forms for last 19 million years, researchers have mapped the spread rates of 18 major mid-ocean ridges.
- The reduced rates in this region could be because the Pacific Ocean is getting smaller while the Atlantic and Indian Oceans are getting bigger. Overall, 15 of the 18 ridges slowed down.

**Q: Recently as new Rare Earth Elements (REE) partnerships is being established. Consider the following statement:**

1. It is a group of 17 metallic elements from the periodic table.
2. US-led initiative acquired mines in Africa for elements like Cobalt.
3. India is the world's tenth-largest reserves of REE.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- REE is a group of 17 metallic elements from the periodic table, comprising 15 lanthanides (Z=57 through 71), Scandium and Yttrium. These metals, found together in geologic deposits, have properties of strategic value to several economic spheres.
- Formed with the intent of dismantling Chinese control and strengthening critical mineral-supply-chains, the 2022 Minerals Security Partnership (MSP) alliance was formed.
- This US-led initiative of 11 nations has developed processing infrastructure in REE and acquired mines in Africa for elements like Cobalt.
- India, despite having the world's fourth-largest reserves of REE, imports its rare earth needs in finished form from China.

- Recently, the ministry of mines recommended removing the 17 rare earth elements from the definition of atomic minerals to allow for commercial mining by PSUs and private companies.