

1. Consider the following statements regarding the Outer Space Treaty, 1967

1. The treaty does not prohibit the launching of ballistic missiles which could be armed with weapons of mass destruction warheads through space
2. India has signed the treaty but yet to ratify it

Which of the statements given above is/are correct?

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

Ans: A

Explanation

- In 1963, **the UN General Assembly** approved two resolutions on outer space that subsequently became the basis for the Outer Space Treaty.
- The United States and Soviet Union submitted separate draft outer space treaties to the UN General Assembly in June 1966. A **mutually agreed treaty** text was worked out over the next six months, and the UN General Assembly gave its approval of the treaty on December 19, 1966. The treaty opened for signature in Washington, Moscow, and London **on January 27, 1967 and entered into force.**
- The treaty **forbids countries from deploying "nuclear weapons** or any other kinds of weapons of mass destruction" in outer space
- The term "**weapons of mass destruction**" is **not defined**, but it is commonly understood to include nuclear, chemical, and biological weapons.
- The treaty, **however, does not prohibit the launching of ballistic missiles**, which could be armed with WMD warheads, through space.

(IAS Academy by IAS Officers)

- 105 countries are states-parties to the treaty, while another 26 have signed it but have not yet completed ratification.
- **India is a signatory to this treaty, and ratified it in 1982**

2. Which of the following is geographically closest to Solomon Islands?

- a) Gulf of California
- b) Sargasso Sea
- c) North eastern Australia
- d) Madagascar

Ans: C

Explanation

- Solomon Islands is a **sovereign state consisting of six major islands** and over 900 smaller islands in Oceania lying to the east of Papua New Guinea and northwest of Vanuatu
- The country's capital, Honiara, is located on the **island of Guadalcanal**. The country takes its name from the Solomon Islands archipelago, which is a collection of **Melanesian islands that also includes the North Solomon Islands (a part of Papua New Guinea)**, but excludes outlying islands, such as Rennell and Bellona, and the Santa Cruz Islands



3. Consider the following statements regarding the Organisation of Islamic Cooperation (OIC)

1. It endeavors to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony
2. It is the second largest intergovernmental organization after the United Nations

Which of the statements given above is/are incorrect?

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

Ans: D

Explanation

- The Organisation of Islamic Cooperation (OIC) is the **second largest intergovernmental organization** after the United Nations with a membership of 57 states.
- It is the **collective voice of the Muslim world**. It endeavors to **safeguard and protect the interests of the Muslim world in the spirit of promoting international peace** and harmony among various people of the world.
- It was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco on the 25th of September 1969
- **Headquarters:** Jeddah, Saudi Arabia
- **India is not a member of the OIC**
- Recently, Organisation of Islamic Cooperation (OIC) has criticised India for what it called **“growing Islamophobia”**
- IOC said, Muslim minorities are being **“negatively profiled,” facing “discrimination and violence”** amidst the COVID-19 crisis in India.
- It has urged the Indian Govt to take urgent steps to stop the growing tide of Islamophobia in India and **protect the rights of its persecuted Muslim minority** as per its obligations under international Human Rights law.
- A religious gathering of muslims (**Tablighi Jamaat**) was held in Delhi in March. The event was linked to many of the Covid-19 positive cases in India. After this most sections of the media, people on social media blamed the Tablighi jamaat and muslims for deliberately spreading the Covid-19 in India.

4. The term ‘blazars’, sometimes mentioned in news in the context of which of the following?

- a) Negative carbon technology
- b) Diagnosis and treatment of HIV infected persons

- c) Natural gas extraction
- d) Astronomical objects

Ans: D

Explanation

- Researchers from the **Indian Institute of Astrophysics (IIA)**, Bangalore, an autonomous institute of the Department of Science & Technology have **conducted the first systematic study** on the gamma-ray flux variability nature on **different types of blazars**
- At the center of most galaxies, there's a massive black hole that can have mass of millions or even billions of Suns that **accrete gas, dust, and stellar debris** around it.
- As these material falls towards the black hole, their gravitational energy gets converted to light forming active galactic nuclei (AGN). A minority of AGN (~15%) emit collimated charged particles called **jets travelling at speeds close to the speed of light**.
- Blazars are AGN whose jets are aligned with the observer's line of sight. Some blazars are thought to **host binary black holes** in them and could be **potential targets for future gravitational-wave searches**.

5. Consider the following statements regarding the Strategic Petroleum Reserves in India

1. It is an emergency fuel storage maintained by Indian Strategic Petroleum Reserves Limited as a **hedge against potential future energy crises**
2. **Under the Indian Strategic Petroleum Reserve (ISPR), crude oil is stored underground in a specially made aluminum containers**

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Ans: A

Explanation

Strategic Petroleum Reserves in India

- The Indian Strategic Petroleum Reserve (ISPR) refers to the emergency **fuel storage maintained by Indian Strategic Petroleum Reserves Limited** (subsidiary of Oil Industry Development Board under the Ministry of Petroleum & Natural Gas) **as a hedge against potential future energy crises.**
- Strategic crude oil storages are at **Mangalore (Karnataka), Visakhapatnam (Andhra Pradesh) and Padur (Karnataka)** as per Phase I. They have fuel storage of total 5.33 MMT (Million Metric Tonnes).
- **The government of India is planning to set up two more such caverns at Chandikhol (Odisha) and Udupi (Karnataka) as per phase II** through Public-Private Partnership. This will give an additional 6.5 million tons of the oil reserves.
- **Thus, a total of 22 days (10+12) of oil consumption will be made available by ISPR**
- **Crude oil from underground rock caverns** (considered **safest for storage of Hydrocarbons**) can be supplied to refineries through pipelines and ships. (not stored in aluminium containers)
- **Indian refiners also maintain crude oil storage (industrial stock) of 65 days.** Thus, a total of 87 days (22 by ISPL + 65 by Indian refiners) of oil consumption will be made available in India after completion of Phase II by ISPR. This will be very close to 90 days mandate by the IEA
- ✓ To make the **best use of the low international crude prices**, public sector oil companies, including Mangalore Refinery and Petrochemicals Ltd. (MRPL) and Indian Strategic Petroleum Reserve (ISPRL), have been **filling ISPRL's caverns at Mangaluru and Udupi** with crude oil