4 Correct Answer : D

Answer Justification :

Justification: P-series fuels are a family of renewable, non-petroleum, liquid fuels that can substitute for gasoline.

P-Series fuels (alternative fuels) are a blend of ethanol, natural gas liquids and methyltetrahydrofuran (MeTHF), a co-solvent derived from biomass.

P-Series fuels are clear, high-octane alternative fuels that can be used in flexible fuel vehicles.

P-Series fuel addresses three problems: the need for non-petroleum energy sources, solid waste management, and affordability. Using feedstock with a negative cost - that means waste that municipalities would otherwise pay to have hauled away - allows the fuel's selling price to be about the same as mid-grade gasoline. It also gives urban areas control over a large portion of the generated trash stream without relying on burning, burying, or bequeathing it to other states. The feedstock is not incinerated, but chemically digested, so there is no combustion with the accompanying toxic air emissions.

Q Source: Important topics in environment

5 Correct Answer : A

Answer Justification :

Justification: STA allows for license exception with regards to exports from the US. This type of US government authorisation allows a certain item to be exported under defined conditions without a transaction-specific license.

Items eligible for export to STA-1 nations include those under control for national security, chemical or biological weapons, nuclear non-proliferation, regional stability, crime control.

The categories also include electronics, lasers and sensors, information security, computers and electronics, navigation, telecommunications, aerospace, etc.

Significance of this move:

The move means that India can get easy access to latest defence technologies, with the reduction of the number of licenses needed for exports from the US.

It is also a boost for the foundational Communications, Compatibility and Security Agreement (COMCASA).

STA-1 provides India with greater supply chain efficiency, both for defence, and for other high-tech products.

The status eases export controls for high technology product sales to India, granting it the same access as NATO allies — Australia, Japan and South Korea.

Learning: India and the United States share an interest in countering China's expanding economic and military weight and the United States has emerged as a top arms supplier to India, selling more than \$15 billion of weapons over the past decade as New Delhi modernizes its Soviet-era military.

Looking at current exports from the US to India, 50% of those are eligible now under STA-1. This can free up \$2.1 billion in trade, make US exporters more competitive in the global marketplace, help provide India more advanced US technology.

India is the only South Asian nation on the STA-1 list that has 36 countries. Other Asian countries designated as STA-1 are Japan and South Korea. Till recently, India was classified as an STA-2 country along with seven others.

 $\label{eq:source:https://www.thehindu.com/business/Economy/india-third-asian-nation-to-get-sta-1-status-from-us/article24603607.ece$

6 Correct Answer : C

Answer Justification :

Learning: Groundwater overuse is particularly found in the agriculturally prosperous regions of Punjab and Western U.P., hard rock plateau areas of central and south India, some coastal areas and the rapidly growing urban settlements.

About 300 districts have reported a water level decline of over 4 metres during the past 20 years. Nearly one-third of the country is overusing their groundwater reserves. In another 25 years, 60 per cent of the country would be doing the same if the present way of using this resource continues.

Falling water tables prompted the use of expensive deep-water equipment, which added to the debt burden of farmers, and worsened the crisis.