**Syllabus subtopic:** Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.

**Prelims and Mains focus:** about the decisions taken in the DAC meeting; about project 75I and its significance; about iDEX scheme

**News:** The Defence Acquisition Council (DAC) chaired by Defence Minister Rajnath Singh on Tuesday cleared Mazgaon Docks Limited (MDL) and Larsen & Toubro (L&T) as the Indian partners in the Navy’s tender for six advanced submarines under Project-75I worth over Rs 45,000 crore.

- This was the first DAC meeting after the constitution of the Chief of Defence Staff and was attended by Gen. Bipin Rawat.

**Decisions taken in the meeting**

- The DAC approved deals worth Rs 5,100 crore, which includes electronic warfare systems for the Army to be developed by the Defence Research and Development Organisation (DRDO) and manufactured locally by the Indian industry.

- The DAC approved shortlisting of Indian Strategic Partners (SP) and the potential Original Equipment Manufacturers (OEMs) that would collaborate with SPs to construct six conventional submarines in India.

- The DAC also approved prototype testing of trawl assemblies designed by DRDO for T-72 and T-90 tanks providing an important indigenous de-mining capability to the Army.

- In addition, DAC accorded approval for inclusion of Innovations for Defence Excellence (iDEX) scheme in the Defence Procurement Procedure which would provide opportunities in capital procurement to start ups and innovators working for iDEX.

**About Project 75I (called “Project-75 India (P-75I)”**

- The Project 75I-class submarine is a follow-on of the Project 75 Kalvari-
class submarines for the Indian Navy.

- Under this project, the Indian Navy intends to acquire six diesel-electric submarines, which will also feature advanced air-independent propulsion systems to enable them to stay submerged for longer duration and substantially increase their operational range.

- All six submarines are expected to be constructed in Indian shipyards.

- This project, under the Strategic Partnership (SP) model, aims to promote the role of the Indian industry in defence manufacturing and build a defence industrial ecosystem. With this there are now two Indian SPs and five OEMs in the shortlisted pool for the project. The Request For Proposal (RFP) would be issued to the Indian partners who would tie up with an OEM and submit a bid. The five OEMs are Daewoo Shipbuilding & Marine Engineering (DSME) (South Korea), Naval Group (France), Navantia (Spain), Rosoboronexport (Russia) and TKMS (Germany).

- The P75I project is part of a 30-year submarine building plan that ends in 2030. As part of this plan, India was to build 24 submarines — 18 conventional submarines and six nuclear-powered submarines (SSNs) — as an effective deterrent against China and Pakistan.

- Of the 14 conventional submarines India currently possesses, including the Scorpene, only half are operational at any given point of time. India also has two nuclear-powered submarines — INS Arihant (SSBN, a ballistic missile submarine) and INS Chakra (SSN, a nuclear-powered one) leased from Russia.

About Innovations for Defence Excellence (iDEX) Scheme:

- It was launched by the Government in April 2018; primarily aims at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace.
It aims at engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia for defence technology to be made and fostered in India.

It will provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs.

iDEX is funded and managed by a ‘Defence Innovation Organization (DIO)’ which has been formed as a ‘not for profit’ company as per Section 8 of the Companies Act 2013 for this purpose.

DIO has been created by the two founder members i.e. Defence Public Sector Undertakings (DPSUs) - HAL & BEL.

iDEX functions as the executive arm of DIO, carrying out all the required activities while DIO will provide high level policy guidance to iDEX.

**Key Functions of iDex:**

- Co-Innovation/co-creation
- Piloting of candidate technologies in important platforms
- Indigenization of various defence and aerospace related platforms being manufactured in the country based on ToT.

**Defence India Start Up Challenge:**

- Taking the iDEX initiative further, Defence India Startup Challenge “has been launched by Defence Ministry in partnership with Atal Innovation Mission.

- It aims at supporting Startups/MSMEs/Innovators to create prototypes and/or commercialize products/solutions in the area of National Defence and Security.

The vision of the Challenge is two-fold:
• Help create functional prototypes of products/technologies relevant for national security (prototyping), and spur fast-moving innovation in the India defence sector
• Help new tech products/technologies find a market and early customer (commercialization) in the form of the Indian Defence Establishment.