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## **General Studies-1**

### **North-East Festival**

The Ministry of Development of North Eastern Region has organised four North East Festivals at Pragati Maidan, New Delhi in 2016, at Chandigarh in 2017, North East Calling Festival at India Gate, New Delhi in 2017 and Experiencing North East at India International Centre, New Delhi in 2018.

#### **Objectives:**

The objective is to build upon the comparative advantages of the North East Region, which included Business summit, Buyer-Seller meet, exhibition stalls aiming interaction to promote tourism, handlooms & handicrafts, bamboo, horticulture, medicinal and aromatic plants etc.

#### **Finances:**

- The expenditure for the scheme till 31.03.2018 has been met under Advocacy and Publicity Scheme of the Ministry. 'Experiencing North East' from October 27-31, 2018 at India International Centre was organised by North Eastern Council.
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- The amounts spent by North Eastern Handicrafts and Handlooms Development Corporation Limited (NEHDC) and North Eastern Regional Agricultural Marketing Corporation (NERAMAC) for the Destination North East Festivals are reimbursed through Grants-in-aid from Ministry of Development of North Eastern Region/North Eastern Council.

## **General Studies-2**

### **Pradhan Mantri Ujjwala Yojana achieves 6 crore mark**

Hon'ble Vice President Shri M. Venkaiah Naidu here today handed over 6 crore LPG connection under Pradhan Mantri Ujjwala Yojana (PMUY) to Smt Jasmina Khatoon from Shivpark, Khanpur, Delhi.



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**About PMUY:**

- In order to provide clean cooking fuel to BPL households in the country, the Government has launched "Pradhan Mantri Ujjwala Yojana"(PMUY) scheme to provide 5 Crore deposit-free LPG connections to women belonging to the Below Poverty Line (BPL) families, which were subsequently increased to 8 Crore with a budgetary allocation of Rs. 12800 crore.

**Details:**

- Implementation of PMUY has resulted in significant increase in national LPG coverage, in general and Eastern States, in particular.
- The scheme has resulted in mass coverage of rural poor households and 48% of the beneficiaries are SC/STs.
- While 74% beneficiaries under the scheme, who could not afford to make upfront payment for purchase of gas stove and first refill, were provided loan facility by the OMCs.
- It is significant to mention that under the PMUY the average per capita consumption is 3.28.
- This should be seen as a positive change in the lives of these households which were long dependent on the traditional cooking fuels and methods.

**Other Steps taken:**

- LPG Panchayats are being observed to promote learning through peer group interaction - Kuch Seekhein, Kuch Sikhayein, where apart from experience sharing, it also aims at safe and sustained usage of LPG.

PMUY implementation has been appreciated by the World Health Organization (WHO) and termed it as a decisive intervention to check the indoor health pollution being faced by the women of the country.

**Organisations Banned Under UAPA**

**Why in News?**



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In exercise of the powers vested in the Central Government under Section 3 of the Unlawful Activities (Prevention) Act, 1967 (UAPA), the Government, on being satisfied that the organizations have become Unlawful, has declared the following Organizations as Unlawful Associations during the last three years:

- i. Islamic Research Foundation (IRF)
- ii. National Liberation Front in Tripura (NLFT)
- iii. All Tripura Tiger Forum (ATTF)

In exercise of powers vested in the Central Government under Section 35 of UAPA, the Government on being satisfied that the organization is involved in terrorism, has added the following organizations to the First Schedule of UAPA during the last three years:

- i. Al-Qaida in Indian Sub-continent (AQIS) and all its manifestations
- ii. Islamic State in Khorasan Province (ISKP)/ ISIS Wilayat Khorasan/ Islamic State of Iraq and the Sham-Khorasan (ISIS-K) and all its manifestations
- iii. Khalistan Liberation Force and all its manifestations

**About UAPA:**

- **Unlawful Activities (Prevention) Act** is an [Indian](#) law aimed at effective prevention of unlawful activities associations in [India](#).
- Its main objective was to make powers available for dealing with activities directed against the integrity and sovereignty of India.
- The [National Integration Council](#) appointed a Committee on National Integration and Regionalisation to look into, the aspect of putting reasonable restrictions in the interests of the sovereignty and integrity of India.
- Pursuant to the acceptance of recommendations of the Committee, the Constitution (Sixteenth Amendment) Act, 1963 was enacted to impose, by law, reasonable restrictions in the interests of the sovereignty and integrity of India.
- In order to implement the provisions of 1963 Act, the Unlawful Activities (Prevention) Bill was introduced in the Parliament.



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## **General Studies-3**

### **Artificial Intelligence**

#### **Why in News?**

Ministry of Defence has initiated the process of preparing Indian defence forces for use of Artificial Intelligence.

To study the whole gamut of issues on the implications of Artificial Intelligence (AI) on National security and defence needs, a multi-stakeholder Task Force on Strategic Implementation of Artificial Intelligence for National Security and Defence represented by members from the Government, Defence Services, Academia, Industry Professionals, Defence Research and Development Organization (DRDO), and Start-ups was constituted in February, 2018.

#### **Details of study:**

- Task Force has studied research and innovation in Artificial Intelligence (AI) and outlined its adoption in defence sector including future roadmap on how to integrate and embed AI strategy with core defence strategy.
- In addition the Defence Public Sector Undertakings and Ordnance Factories have been assigned a roadmap for developing AI enabled products.
- There is no specific fund allocation on yearly basis. However, funds are allocated for various projects on case to case basis.

#### **Some of the projects are as under:**

- A project has been sanctioned to Centre for Artificial Intelligence (AI) and Robotics (CAIR), a DRDO based laboratory, to develop AI based solutions for signal intelligence to enhance intelligence collation and analysis capabilities to the armed forces. The total cost of the project is Rs.73.9 crore.
- A project named, Energy Harvesting Based Infrared Sensor Network for Automated Human Intrusion Detection (EYESIRa), which is partially based



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on the principles of IoT, has been sanctioned for Rs.1.8 crore.

**Why is it Important?**

- Artificial Intelligence (AI) based tools would aid the defence forces constructively in areas such as decision support, sensor data analysis, predictive maintenance, situational awareness, accurate data extraction, security etc.
- These tools will assist defence personnel in better operations, maintenance and logistics support.

**Electronic Industry in Defence**

The Government proposes to promote indigenous product development and manufacturing in the entire value chain of the Defence Electronic sector and to develop capacities for manufacturing of strategic electronic within the country with increasing value addition.

**Aim:**

It proposes to use it to leverage India's strength in IT / software area to support Aerospace and defence driven Ecosystem.

**Steps taken:**

Following are the steps taken by Government for promotion of domestic electronics manufacturing:

- Modified Special Incentive Package (MSIPS) provides financial incentives to offset disability and attracts investments in the Electronic Systems Design and Manufacturing sector. The scheme is available for both new projects and expansion project, and is open to receive applications till 31.12.2018.
- Electronics Manufacturing Clusters (EMC) Scheme to provide financial support for creation of state-of- the art infrastructure for electronics manufacturing units.



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- Tariff Structure has been rationalized to promote domestic manufacturing of electronic goods, including inter-alia mobile handsets, Televisions etc.
- As per extant Foreign Direct Investment (FDI) policy, FDI upto 100% under the automatic route is permitted for electronic product manufacturing, subject to applicable laws / regulations; security and other conditionalities.
- The imports of used plant and machinery having a residual life of at least 5 years or use by the electronics manufacturing industry has been simplified through the amendment of Hazardous and other wastes Rules, 2016.

**Steps taken to promote innovation and R&D:**

- Electronics Development Fund (EDF) has been set up as a "Fund of Funds" to participate in professionally managed "Daughter Funds" which in turn will provide risk capital to companies developing new technologies in the area of electronics, Nano-electronics and Information Technology.
- Ministry of Electronics and Information Technology (MeitY) provides grant-in- aids support to institutes of higher learning like IITs, IISc, Central Universities and R&D Organizations to conduct research in identified thrust areas.
- An Electropreneur park has been set up in New Delhi for providing incubation for development Electronic System Design & Manufacturing (ESDM) sector which will contribute IP creation and Product Development in the sector.
- National Centre of Excellence for Technology on Internal Security (NCETIS) has been set up at IIT-Mumbai with the objective to address the internal security needs of the nation on continuous basis by delivering technology prototypes required for internal security and to promote domestic industry in internal security.
- Centre of Excellence on Internet of Things (IoT) has been set up in Bengalure jointly with NASSCOM.
- An incubation centre with focus on medical electronics has been set up at IIT- Patna.

**Other Steps:**

As a part of Government efforts to develop specialized zones dedicated to defence production including electronic industry in defence sector, the Government has announced setting up of two defence corridors, one in Uttar





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Pradesh and other in Tamil Nadu. Detailed project report on defence corridors is under preparation.

### **Missile Defence System**

A contract has been signed on 05 October 2018 for delivery of S-400 system from Russia. The deliveries will commence from October 2020 and will be completed by April 2023.

The system will provide a very capable air defence coverage to Vulnerable Areas/ Vulnerable Points (VAs/VPs).

### **About S-400 Missile Defence:**

**Russia's S300 surface-to-air missile system**

Primary purpose is the defence of large military complexes and population centres. Capable of engaging multiple aircraft at different altitudes, drones and cruise missiles

**THE MOBILE SYSTEM**


Altitude 10 metres-27,000 metres  
Engages up to 6 targets simultaneously

**Vertical launcher**

**FLAP LID radar**  
Tracks up to 12 targets

**THE MISSILE**

Length 7.5m  
Diameter 0.519m  
Weight 1,900kg  
Warhead 145kg  
Range 120miles  
Speed 4,700mph



**The Syrian deal** (agreed in 2007). To supply 4-6 S300 batteries and 144 operational missiles. Worth \$900 million



## **Scramjet Engine**

### **Why in News?**

The first experimental mission of a sub-scale Scramjet engine, towards the realization of an Air Breathing Propulsion System, was successfully conducted on August 28, 2016 from Satish Dhawan Space Centre, Sriharikota.

### **Advantages:**

- With this experimental flight, critical technologies such as ignition of air breathing engines at supersonic speed, holding the flame at supersonic speed, air intake mechanism and fuel injection systems have been successfully demonstrated.
- The Air breathing propulsion technology will be useful during the atmospheric phase of the flight of launch vehicle as the oxidizer for the fuel is derived from the atmosphere itself.
- This reduces the need for carrying the oxidizer along with the fuel and will benefit in bringing down the cost of access to space.
- The present developed technology is useful for launch vehicles and missiles and is not directly applicable for spacecraft propulsion.