

NATIONAL SOCIAL ISSUES- WOMEN, POPULATION, URBANISATION, EMPOWERMENT ETC**National Water Mission Awards- 2019**

Union Minister for Jal Shakti presented the National Water Mission Awards- 2019.

About:

- Presented by: The 'National Water Mission Awards' is an initiative of National Water Mission (NWM), Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti.
- Objective of Awards: To recognize excellence in water conservation, efficient water use and sustainable water management practices.
- Categories: The awards are given in ten categories defined under five goals of NWM.
- Prize Money: The prize money for the awards is: (i) First - Rs. 2 lakh; (ii) Second - Rs. 1.5 lakh and (iii) Third - Rs. 1 lakh.

National Water Mission (NWM)

- Parent programme: NWM is one of the 8 missions under National Action Plan on Climate Change (NAPCC).
- Objective: Conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within states through integrated water resources development and management.
- Goals: NWM has five goals as under –
 - Comprehensive water data base in public domain and assessment of the impact of climate change on water resources.
 - Promotion of citizen and state actions for water conservation, augmentation and preservation.
 - Focused attention to vulnerable areas including over-exploited areas.
 - Increasing water use efficiency by 20%, and
 - Promotion of basin level integrated water resources management.

INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS**Exercise Malabar 2019**

The 23rd edition of the Trilateral Maritime Exercise MALABAR, is scheduled between the navies of India, Japan and USA from 26 September to 4 October 2019 off the coast of Sasebo, Japan.

About:

- MALABAR 2019 would endeavour to further strengthen India - Japan - US Naval cooperation.
- The Exercise would encompass conduct of operations in the surface, sub-surface and air domains, and focus on Anti-Submarine Warfare, Anti-Air and Anti-Surface Firings, Maritime Interdiction Operations (MIO) including tactical scenario based Exercise at Sea.
- Background: Malabar exercise began in 1992 as a bilateral naval exercise between India and the U.S. With the inclusion of Japan in 2015, it was expanded into a trilateral format.

ISSUES RELATED TO INTERNAL SECURITY AND DISASTER MANAGEMENT**ERSS-112; PRAKHAR Van**

Union Ministry for Home Affairs launched the Emergency Response Support System (ERSS-112) and PRAKHAR street crime patrol van in Delhi.

Emergency Response Support System (ERSS-112):

- The emergency response support system (ERSS-112) is a helpline system which has been developed as a nationwide single emergency number for emergency services – police, fire, and ambulance. It will gradually phase out the other three emergency helpline numbers.
- This single number for emergency services is similar to "112" in the European Union consisting of 28 member states and "911" in the United States of America.
- With this launch, Delhi becomes the 19th state/UT to have adopted ERSS-112. Initially, it was launched in Himachal Pradesh and Nagaland and was further extended to 16 other states.

PRAKHAR:

- PRAKHAR is a street crime patrol van, for patrolling at crime hot spot locations.

- Prakhars vans are different from PCRs as these vans carry more firepower and are equipped with modern technology. Initially, one van will be deployed in each district in Delhi. Its strength will augment in due course with a target of 100 such vans for the city.

Private Security Agency Licensing Portal

The Union Home Ministry launched the Private Security Agency Licensing Portal at a National level.

About:

- This is a single-window system for issuing licences to private security agencies.
- The portal will be available in all official Indian languages in next 90 days and have a section so that people know whether the agency they want hire has valid licence or not.
- The online portal would be useful in ensuring transparency in licensing in this sector and would give a boost to its credibility. He said that with the online availability of credentials, it would become easier for an agency registered in one state to expand its operations in another state.
- The move attempts to streamline the licensing regime with the Home ministry becoming the dashboard for regulating the private security industry under The Private Security Agencies (Regulation) Act, 2005.
- Gujarat has highest number of private security agencies (2249), followed by Maharashtra 1309.

Darknet

The Kerala Police has set up a 'state-of-the-art lab' to intervene and crack down on the rising criminal activities over the Darknet, also known as the underworld of the Internet. Spearheading the programme is Cyberdome, the State police department's premier facility dedicated to prevent cybercrime and mitigate security threats to the State's critical information infrastructure.

Concerns over Darknet:

- In February 2016, in a study titled 'Cryptopolitik and the Darknet', researchers analysed content over the TOR network.
- Of the 2,723 websites they could classify by content, 1,547 – 57 % – hosted illicit material ranging from drugs (423 sites), illegitimate pornography (122) and hacking (96), among others.
- There were also reports of log-in details of streaming sites like Netflix being sold on the dark web marketplaces for cheap rates.
- The network is also used by several activists especially those living under oppressive regimes to communicate without any government censorship.
- The TOR network was used by activists during the Arab Spring.

Darknet and India:

- The Information Technology Act deals with cybercrime and comes under the Ministry of Electronics and Information Technology. There are only six sections in the law that deal with cybercrime.
- With the changing times, India needs a code of criminal procedures dealing with cybercrime that would come under the Ministry of Home Affairs, which deals with policing issues.
- Also, there is a need for police, trained in changing cyber trends who are dedicated only to cybercrime and not transferred to other police units.

SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC

Quantum Supremacy

A scientific paper by Google has claimed that quantum processors have "reached the regime of quantum supremacy".

About:

- Quantum supremacy, or "quantum advantage" is the point at which quantum computers can solve problems that are practically unsolvable for "classical" (non-quantum) computers to complete in any reasonable timeframe.
- It is generally believed that at least 49 qubits are required to cross the quantum supremacy line.

Recent developments:

- A Google research paper has claimed the feat, saying "their processor was able to perform a calculation in three minutes and 20 seconds that would take today's most advanced classical computer, known as Summit (from IBM), approximately 10,000 years".
- In March 2018, Google unveiled its 72-qubit quantum computer chip Bristlecone, saying it was "cautiously optimistic that quantum supremacy can be achieved with Bristlecone".

- Not just Google but several tech giants like Microsoft, IBM and Intel have joined the race to build a scalable quantum computer. Earlier this week, IBM unveiled its quantum computer with 53 qubits.

Qubits vs bits:

- Qubits behave very differently to bits in classical computers.
- Bits represent either a “1” or a “0,” and computers read and perform operations on one bit at a time.
- In contrast, qubits can represent a combination state made up of both “1” and “0,” due to the peculiar quantum effects in which properties like particle position, direction, and momentum are not well-defined.
- This allows for a system to be in multiple states at the same time, called quantum indeterminacy.

MISC**Sardar Patel National Unity Award**

Government of India has instituted ‘Sardar Patel National Unity Award’ - Highest Civilian Award for contribution to Unity and Integrity of India. A notification instituting the Award was issued by Ministry of Home Affairs on 20th September, 2019.

About:

- The Award, in the name of Sardar Vallabhbhai Patel, is the highest civilian award in India in the field of contribution to the unity and integrity of India. It seeks to recognize contributions to promote the cause of national unity and integrity.
- The award will be announced annually on the occasion of the National Unity Day, i.e. the birth anniversary of Sardar Patel on 31st October.
- The Award shall be conferred by the President in a presentation ceremony along with the Padma award presentation ceremony held in Rashtrapati Bhawan.
- An Award Committee would be constituted by the Prime Minister, which would include the Cabinet Secretary, Principal Secretary to the PM, Secretary to the President, Home Secretary as Members and three-four eminent persons selected by the PM.
- The Award would consist of a medal and a citation. No monetary grant or cash award would be attached to this Award.
- All citizens, without distinction of religion, race caste, gender, place of birth, age or occupation, and any institution/organization would be eligible for the Award.
- Not more than three Awards would be given in a year. It would not be conferred posthumously except in very rare and highly deserving cases.
- Any Indian national or institution or organization based in India would be able to nominate an individual for consideration for this Award. Individuals may also nominate themselves. State Governments, UT Administrations and Ministries of Government of India may also send nominations.

DEFENCE AND SECURITY**ICGS Varaha**

The ICGS Varaha was commissioned by Defence Minister Rajnath Singh at the Chennai port.

About:

- The ICGS Varaha is the fourth in the series of seven 98-m Offshore Patrol Vessels (OPV) of the Indian Coast Guard (ICG).
- The ship has been designed and built indigenously by Larsen & Toubro (L&T) at its Katupalli ship building yard in Chennai.
- It would be based at New Mangalore under the administrative and operational control of Commander Coast Guard region (west).
- The name ‘Varaha’ is taken from Puranas, who was the third incarnation of Lord Vishnu which took the form of Boar to protect mother earth by carrying her out of the sea on his tusks.
- It is fit with the latest navigation and communication equipment. It also has some of the most advanced sensors and machinery as well as a 33-millimetre (mm) gun.
- The ship's special features include the integrated Bridge System, Automated Power Management System and indigenously built Integrated Platform Management System and Halo Traversing System.

QUOTE OF THE DAY

Someday is not a day of the week.

DAILY ANSWER WRITING PRACTICE

Qns What are different types of Cyber threats faced by the contemporary world? Discuss various challenges in implementing Cyber Security mechanisms India.

Ans

Cyber threats can be disaggregated, based on the perpetrators and their motives, into four: cyber espionage, cyber warfare, cyberterrorism, and cyber crime

- Cyber espionage: Intelligence gathering and data theft. Examples of this were Titan Rain and Moonlight Maze
- Cyber warfare: It involves the actions by a nation-state or international organization to attack and attempt to damage another nation's computers or information networks.
- Cyber terrorism: It is premeditated, politically motivated attack against information, computer systems, computer programs, and data which results in violence
- Cybercrime: It is any criminal activity that involves a computer, networked device or a network

Cybersecurity or information technology security is the techniques of protecting computers, networks, programs and data from unauthorized access or attacks that are aimed for exploitation. Exploitation could be in the form of data theft, violation of privacy or in any other form that affects the normal functioning of hardware or software of the service.

Issues and Challenges

- Hardware Cyber Security Concerns: Most equipment and technology for setting up Cyber Security infrastructure in India are currently procured from global sources. These systems are vulnerable to cyber threats just like any other connected system.
- Skill gaps: Globally, India ranks second in terms of the number of Internet users after China (Internet World Stats, 2017). However, India has a negligible base of cyber security specialists, when compared to internet user base.
- Internet of Things as a weak link: Often internet connected devices lack basic security features, or they aren't properly configured and rely upon default passwords that can give attackers easy access. This in turn is giving rise to botnets, which can be used for volumetric attacks.
- Digital Data Threat: Growing online transactions have generated bigger incentives for cybercriminals. Besides, establishments looking to mine data (customer information, results of product surveys, and generic market information), they also create treasured intellectual property that is in itself an attractive target.
- Lack of robust Legal and law enforcement mechanisms: India's approach to cyber security has so far been ad hoc and unsystematic. Despite a number of agencies, policies and initiatives, their implementation have been far from satisfactory.
- Lack of Coordination between stakeholders: Due to the existence of too many agencies with overlapping functions in the field of cyber security, coordination between these agencies is poor
- Lack of awareness: There is a lack of awareness about cyber security threats and preventive measures at both organizational level as well as individual level.

Way Forward:

There is a need for coordination among national and international agencies working on cybersecurity. India could thus learn from the best practices of other countries and streamline the processes and protocols. With growing adaptation to technology, cyber attacks, cyber crimes and cyber terrorism are growing at a faster pace. India needs to be proactive and diligent in handling these attacks. Steps should be taken to protect public, private organizations and individuals. A holistic approach is needed to address the issue, with no loose ends left. Cybersecurity is also key to success in initiatives like Make in India, Digital India, Smart cities program.

DAILY CURRENT AFFAIRS MCQS

1. Consider the following statements:
 1. Qubit is the computation unit of Quantum computers.
 2. Quantum computers are slower as compared to supercomputers.

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

2. Consider the following statements:
 1. Exercise Malabar is a bilateral exercise between India and Japan.
 2. It is an annual military exercise.

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**

3. What is 'ICGS Varaha', recently seen in news?

- (a) **Offshore Patrol Vessels (OPV) of the Indian Coast Guard (ICG)**
- (b) Advanced Light Helicopter inducted by Indian Coast Guard (ICG)
- (c) A defence collaboration between Japan and Indian Coast Guard (ICG)
- (d) None of the above

4. With reference to 'Sardar Patel National Unity Award', consider the following statements:

1. It is the highest civilian award in India in the field of contribution to the unity and integrity of India.
2. Not more than three Awards would be given in a year.

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

5. With reference to National Water Mission Awards- 2019, consider the following statements:

1. It is an initiative of National Water Mission (NWM), Ministry of Jal Shakti.
2. National Water Mission (NWM) is one of the 8 missions under National Action Plan on Climate Change (NAPCC).

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

6. With reference to the Private Security Agency Licensing Portal, consider the following statements:

1. It is a single-window system for issuing licences to private security agencies launched by Union Home Ministry.
2. Uttar Pradesh has highest number of private security agencies in India.

Which of the statements given above is/are correct?

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

7. Emergency Response Support System (ERSS-112) is a nationwide helpline system, recently seen in news, launched by:

- (a) **Union Ministry of Home Affairs**
- (b) Union Ministry of Communications
- (c) Union Ministry of Women and Child Development
- (d) Union Ministry of Law and Justice