



*Drishti*  
**CURRENT  
AFFAIRS TODAY**

Year 5 | Issue 05 | Total Issues 53  
October 2020 | ₹ 100

**SPECIAL SUPPLEMENT**

**PT 2020**  
**Compendium**  
**Part II**

- Learning Through Maps
- Academic Vitamins
- Current Affairs
- Target Mains
- To The Point

**Extensive Current Affairs Coverage:**  
Contempt of Court, National Education Policy, 2020  
Demand for 6<sup>th</sup> Schedule Status: Arunachal Pradesh  
Sutlej-Yamuna Link Canal Project, Increased Fiscal  
Deficit, Contraction in Core Sector Industries  
and much more...

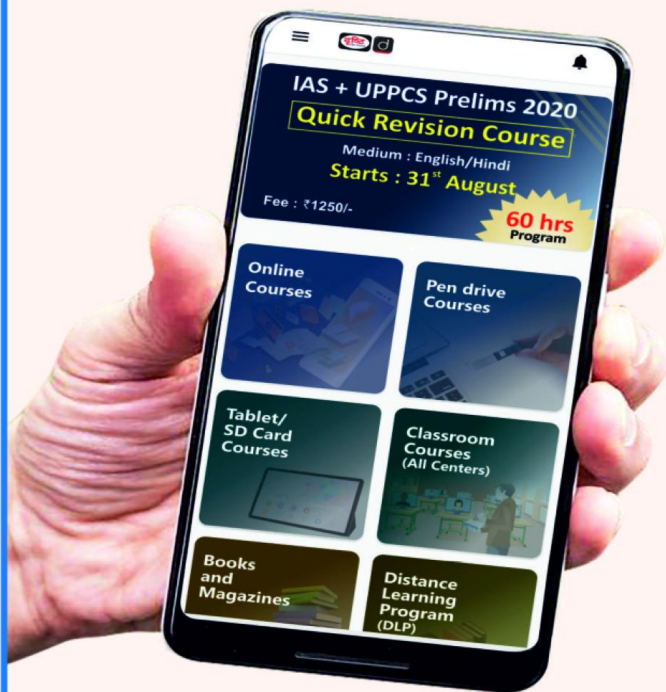


Are you appearing in the civil services Prelims but concerned about clearing it?

**Drishti IAS brings**

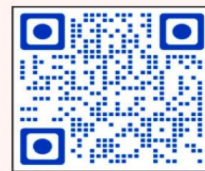
## Prelims 2020: Quick Revision Course

- 20 video classes to help you quickly revise the General Studies syllabus.
- Special focus on points which are important but are missed during preparation.
- Helps you identify important topics and probable questions for this year's Prelims.



**For demo classes and admissions, download our Android app**

## Drishti Learning App



**For additional information about the course, please call 8010440440, 8750187501, 9319290696**

**641, 1st Floor, Dr. Mukherji Nagar, Delhi-9**

**E-mail: [online@groupdrishti.com](mailto:online@groupdrishti.com), [info@drishtiias.com](mailto:info@drishtiias.com), \*Website: [www.drishtiias.com](http://www.drishtiias.com)**



## Editor-in-Chief & CMD

Dr. Vikas Divyakirti

### Director

Dr. Taruna Verma

### Executive Editor

Abhishek Mishra

### Dy. Executive Editor

Rishikesh

### Editorial Team

Vivek Hari Singh (News Editor), Dipanshu Saini,  
Savitri Bishnoi, Nisha Jindal, Aditi Ambekar,  
Devendra Saharan, Surya Pratap Deva

### Editorial Support

Debabrat Gogoi, Gaurav Bana, Rabmeet Kaur,  
Dr. Deepshikha, Georgi Mathan Ninan,  
M.S. Suman, Yashwant Singh Rana

### Typesetting and Designing

Jitender Ruhela, Jitesh,

Amit Kumar Bansal, Vivek Pal, Anil Kumar,  
Poonam Saxena, Medha, Karuna Aggarwal,  
Lokesh Pal, Rajo Kamti, Deepika Grover

### Web Section

Avinash Kumar,

Geeta Pal, Abhishek Kumar,  
Anu Raj, Vinay Prakash Srivastava

### Managerial Support (Senior)

Mohd. Aftab Alam, Ekta Kalia,  
Ajay Sharma, Aditi Verma, Gopal Rai

### ©Copyright

**Drishti Publications**, (A Unit of VDK

Publications Pvt. Ltd.), All Rights Reserved.

The use, publication, translation or storage in a system where it can be reused or transferred in any form or by any method (electronic, mechanical, photo copy, recording or any other means) of any section published in this magazine, cannot be done without the prior permission of the publisher.

### Printed by

M.P. Printers, B-220, Phase-2, Noida,  
Uttar Pradesh and Published for Owner, Printer &  
Publisher Vikas Divyakirti, H-203, Signature  
View Apartments, Mukherjee Nagar,  
Delhi-110009. Editor: Vikas Divyakirti

## CONTACT FOR ADVT. AND BUSINESS

Ajay Karakoti (CFO)

☎(0-81303 92355)

## CONTACT FOR SUBSCRIPTION

☎(0-9599084248)

THIS MAGAZINE IS A RESULT OF TEAM COLLABORATION. WE EXPRESS OUR GRATITUDE TO ALL OUR TEAM MEMBERS. APART FROM THE GIVEN NAMES, SEVERAL FREELANCE WRITERS HAVE ALSO MADE IMPORTANT CONTRIBUTIONS.

## DEAR ASPIRANTS,

In the initial days of COVID19, towards the end of March 2020, India went into a lockdown. The number of daily new cases at that time was around 85. But the fear of contracting the virus was very high. Now after five months, the number of daily new cases has crossed 75,000, but the fear of contracting the virus has reduced. This is indicative of the fact that we are getting used to live in the new normal. It is the new normal in which we all have to live, study and succeed.

The Civil Services Preliminary (CSP) Exam is less than a month away and our in-house team of experts has come up with Prelims focussed rapid revision module, as special supplement. Last month we provided, PT 2020 Compendium Part I which was a compilation of static portion of the syllabus. This month we bring to you the PT 2020 Compendium Part II which compiles the current affairs of last one year. Current affairs remains one of the most significant segments of GS paper in CSP and this supplement has been specifically designed to help you brush up all the key topics in minimum time. Please do read it multiple times to fortify your current affairs preparation. We hope that the PT 2020 Compendium becomes your weapon for conquering the challenge posed by the upcoming Prelims.

A piece of advice to all the aspirants who are appearing in this year's exam would be to remain confident and not get anxious over covering the syllabus in its entirety. The syllabus is very vast and it is normal if you are not able to cover some portions of it, as long as you have covered the core areas well. Also, in the exam hall do not strain yourself over one or two questions; do not make answering any question a prestige issue as it can only harm your chances of clearing the first stage of the exam. Try to solve all the questions with a cool mind and you will do much better. To suffice, let me quote Mother Teresa who once said, "Yesterday is gone. Tomorrow has not yet come. We have only today. Let us begin."

From this month onwards we are also restarting the 'Toppers' Interview', a segment that features an in-depth conversation with the CSE selected candidate detailing his or her experience and strategy for the exam. It will be insightful for other aspirants.

Wishing you all the best in your future endeavours.

We look forward to your feedback and suggestions

With Best Wishes

(Dr. Vikas Divyakirti)

## CONTACT US

For suggestions/feedback, write to :

**Executive Editor,**

Drishti Current Affairs Today, Drishti Publications, 641, First Floor, Dr. Mukherjee Nagar, Delhi-110009

**Phone: 87501 87501, WhatsApp: 81303 92355**

**Email: dcat@groupdrishti.com**



Drishti IAS (DCAT page): facebook.com/drishtieng/



Drishti IAS: t.me/dailycadrishtiiias

## DISCLAIMER

- The views expressed in the articles in this magazine are of the individual writers. It is not necessary that the editor or the publisher shares the same viewpoint. It is our endeavor to include articles from writers believing in diverse ideologies so that our readers can benefit from the diversity of views on any subject.
- The information, facts and news items published in this booklet have been thoroughly examined and validated. If, by any chance, any discrepancy in any information or fact is found, the publisher, the editor or the book printer is in no way responsible for the damage(s) caused to any person or organization.
- The images and maps used in this magazine are for representational purposes only.
- We believe that the information provided in this book has been fundamentally written by our content developers. In case of a copyright violation, the publisher, the editor or the book printer would not be held responsible under any circumstance(s).
- All legal disputes are subject to the Delhi jurisdiction only.

# Contents

## 05 Toppers' Interview

- Lavish Ordia (05)

## 10 Current Affairs

- Polity & Governance (12)
- Nation & States (20)
- Economic Scenario (28)
- International Relations (37)
- Environment & Ecology (49)
- Science & Technology (57)
- History, Art & Culture (66)
- Social Issues (73)
- Did You Know? (79)

## 88 Academic Vitamins

- **Economic and Political Weekly (88)**
  - What Ails India's Data Economy? (88)
  - Of Whales and Wheels: Buddhist Lessons in Democracy (89)
  - What is So Wrong with Online Teaching? (90)
  - Gandhi and Pandemic (91)
- **Yojana (92)**
  - Philosophical Nature of Indian Music (92)
  - Temple Inscription of Tamil Nadu (92)
  - Unique Identity of the Northeastern Region (93)
  - Maharashtra: Richly Diverse and Vibrant (94)
  - Weaving National Honour (95)

- Kaleidoscope of Indian Culture (95)
- Territorial Security: India-China Relations (96)

### ○ **Kurukshetra (97)**

- Rebooting Rural Economy (97)
- Food Processing: Potential Driver of Agri-Business (98)
- MSMEs: The Catalyst of Development (99)

### ○ **Down to Earth (100)**

- Politics of Recycling Plastic (100)
- Why should India Worry About a Warming Arctic? (100)
- Back to Basics (101)
- Winged Wonders (101)
- Peril in the Hills of South India (102)

## 103 Essay

## 104 Learning Through Maps

- Map 1 (104)
- Map 2 (105)

## 106 To The Point

- Atma Nirbhar Bharat: Vocal for Local (106)
- Emotional Intelligence (107)

## 113 Supplement- PT 2020 Compendium Part II

## Lavish Ordia

*Academic Background: B.Tech., Mechanical Engineering, IIT Bombay 2015*

*Previous selections (if any): Indian Forest Service 2019, AIR 2*

*Interests/hobbies: Cooking, Photography, Following stock market*

*Optional subject: Mechanical Engineering*

*Number of attempts: First attempt*

*Rank: 18*



**Drishti Current Affairs Today (DCAT): Congratulations on your selection! How do you feel?**

Thanks. It is a feeling of relief as well as surprise. Relieved to have exited the UPSC cycle gracefully and not having to study the same thing all over again. Surprised because I never expected such a rank.

**DCAT: What attracted you to civil services?**

To be able to work on everyday problems around us and make a direct impact on the life of the people around. No other career offers such leadership roles so early in the career. The social respect and recognition have also been a factor.

**DCAT: When did you start preparation, along with graduation, immediately after it, or something else?**

I worked in Shell, the oil and gas company, both in India and the US for total 3 years before I finally resigned and started preparing for civil services.

**DCAT: Were you satisfied with your level of preparation before the exam and were you hopeful of being successful?**

Honestly, after coming out of the exam hall, I felt my preparation could have been a lot better. I should have practiced a few more tests, made some more short notes and studied some topics more thoroughly. But perfection is a myth and there is always scope of

improvement. What matters in a competitive exam is your relative performance compared to other candidates, and our preparation just needs to be better compared to others, not perfect.

Since, it was my first attempt, I had no idea of the marking pattern or any benchmark to compare my performance. I tried to give my best and hoped to get my name on the list.

**DCAT: How is the UPSC examination different from other examinations?**

Apart from being very tough and competitive, the biggest difference is the high level of subjectivity in the entire process that makes the exam results unpredictable. There is also an element of randomness in the interview, scoring of optional subject or GS papers, as no one knows how the marking is done. The evaluation of copies still remains a black box for the aspirants.

**DCAT: What do you consider as your formula of success?**

Exam focused preparation with consistency, a very good focused study peer group along with the right timely guidance from my batchmates and seniors.

**DCAT: Considering the extensive syllabus of general studies in preliminary examination and main examination, what strategy did you adopt for its preparation?**

# CURRENT AFFAIRS

(Coverage from 24<sup>th</sup> July to 23<sup>rd</sup> August)



## Polity & Governance

12-19

- Plea Bargaining (12)
- Contempt of Court (13)
- Issue of Audit & RTI of PM-CARES (14)
- Habeas Corpus Cases in Jammu & Kashmir (16)
- National Education Policy, 2020 (17)
- Expansion of the NCC (19)

- Partial Credit Guarantee Scheme 2.0 (34)
- Electronics Manufacturing in India (35)

## International Relations

37-48

- Israel-UAE Peace Deal (37)
- Loya Jirga: Grand Assembly of Afghanistan (38)
- Suspension of Extradition Treaty with Hong Kong (39)
- Turkey-Greece Stand-off (40)
- Beirut Explosion (41)
- India Announces Package to Maldives (43)
- Boundary Working Group: India-Nepal (45)
- Chinese Involvement in Teesta River (46)
- RBI Signs Currency Swap for Sri Lanka (47)

## Nation & States

20-27

- Demand for 6th Schedule Status: Arunachal Pradesh (20)
- Report on Clause 6 of Assam Accord (21)
- Sutlej-Yamuna Link Canal Project (22)
- Andaman and Nicobar Islands to be Maritime and Startup Hub (23)
- Electric Vehicles Policy 2020: Delhi (25)
- Swachh Survekshan 2020: MoHUA (26)

## Environment & Ecology

49-56

- World Solar Technology Summit: ISA (49)
- India's Solar Energy Initiatives (49)
- Oil Spill in Mauritius (50)
- Bioethanol Blending of Petrol (51)
- Organic Farming in India (54)
- Marine Pollution (55)

## Economic Scenario

28-36

- Financial Stability Report: RBI (28)
- Monetary Policy Report: RBI (29)
- Economic Measures Taken by RBI (30)
- K.V. Kamath Committee on Restructuring of Loans (31)
- Increased Fiscal Deficit (31)
- Transparent Taxation – Honoring the Honest (33)
- Contraction in Core Sector Industries (33)

## Science & Technology

57-65

- Russian Covid Vaccine: Sputnik V (57)
- RaTG13 Sarbecovirus (58)
- Aspirin Nanorods to Prevent Cataract (59)
- SFTS Infection in China (59)
- Schizophrenia and its Possible Cause (60)

- New Research on Smallpox Origins (61)
- Development of Synthetic Flavonoids (62)
- Hiroshima Black Rain (63)
- Space X Capsule Returns Safely (63)
- International Thermonuclear Experimental Reactor (ITER) Assembly (64)

### History, Art & Culture

66-72

- Bal Gangadhar Tilak (66)
- Chandra Shekhar Azad (67)
- Natesa: Pratihara Style of Rajasthan (67)
- Marthoman Jacobite Syrian Cathedral Church (68)
- Revamp of Lingaraj Temple: Odisha (69)
- National Flag of India (70)
- Quit India Movement (71)

### Social Issues

73-78

- Higher Food Prices and Nutrition Security (73)
- Women in Research And Development (74)
- World Tribal Day (76)
- Universal Ratification to Child Labour Convention (77)
- SC Verdict on Hindu Women's Inheritance Rights (78)

### Did You Know?

79-87

- Asteroid 2020 ND (79)
- Mega Covid-19 Testing Lab (79)
- SalivaDirect: Covid-19 Test (79)
- Black Box on Aircraft (80)
- Fly Ash (80)

- Invisible Shield against Electromagnetic Interference (80)
- Volcanoes on Venus (81)
- Phase II/III Clinical Trials of Covishield (81)
- Electronic Vaccine Intelligence Network (81)
- Time Capsules (81)
- Perseids Meteor Shower (82)
- Jobs Data: CMIE (82)
- Food System Vision 2050 Prize: Rockefeller Foundation (82)
- 100% FDI in Air India for NRIs (82)
- Restrictions on Public Procurement (83)
- Signs of Economic Recovery: CII (83)
- Reasons Behind Pink Water of Lonar Lake (83)
- Global Tiger Day (84)
- Investment to Reduce Plastic Waste in India (84)
- Seed Bombs: Solution to Man-Animal Conflict (84)
- Hornbill Habitat Loss (84)
- Papum Reserve Forest (84)
- Minimum Age of Marriage for Girls (85)
- CHRI Report on Slavery (85)
- National Recruitment Agency (85)
- No Audit of PM-CARES Funds by CAG: SC (85)
- National Strategy for Financial Education (86)
- Operation Breathing Space: India-Israel (86)
- National Digital Health Mission (86)
- National Handloom Day (86)
- Sahakar Cooptube NCDC Channel (87)

# Polity & Governance

## Plea Bargaining

Several citizens of various countries, who were accused of violating visa conditions and government guidelines following the **Covid-19 pandemic**, have obtained release from court cases in recent days by **means of plea bargaining**.

### Key Points

#### ■ About:

- It refers to a person charged with a criminal offence (**accused**) **negotiating with the prosecution for a lesser punishment** than what is provided in law **by pleading guilty to a less serious offence**.
- It primarily involves **pretrial negotiations between the accused and the prosecutor**. It may involve **bargaining on the charge or in the quantum of sentence**.

#### ■ Objectives of Plea Bargaining:

- Reduce the **pending litigation**.
- Decrease the number of **under trial prisoners**.
- Make **provision of compensation** to the victim of crimes by the accused.
- **Cut delay** in the disposal of criminal cases.

#### ■ Provisions in India:

- **Plead Guilty**: There has always been a provision in the **Code of Criminal Procedure (CrPC)** for an accused **to plead 'guilty' instead of claiming the right to a full trial**, but it is **not the same as plea bargaining**.
- **Plea Bargaining**: Plea bargaining was **introduced in 2006** as part of a set of amendments to the CrPC as **Chapter XXI-A**, containing **Sections 265A to 265L**.
- Cases for which the plea bargaining is allowed are **limited**.
  - ◆ Only someone who has been charged for an offence that **does not attract the death sentence, life sentence or a prison term above seven years** can make use of the scheme under

Chapter XXI-A. It is **also applicable to private complaints** of which a criminal court has taken cognisance.

- ◆ Other categories of cases that **cannot** be disposed of through plea bargaining are those that involve offences **affecting the "socio-economic conditions"** of the country, or **committed against a woman or a child below the age of 14**.

#### ■ Procedure in India:

- The plea bargaining process **can be initiated only by the accused**. This provision is **different from the one in other countries like the USA** where the prosecutor plays a key role in bargaining with the suspected offender.
- The accused will **have to apply to the court** for invoking the benefit of bargaining.
- Thereafter, the court may permit the **prosecutor, the investigating officer and the victim (if any) to hold a meeting** for a "satisfactory disposition of the case".
- Once mutual satisfaction is reached, the court formalises the arrangement by way of a report signed by all the parties and the presiding officer.
  - ◆ The accused **may be sentenced to a prison term that is half the minimum period** fixed for the offence. If there is no minimum term prescribed, the sentence should run up to **one-fourth of the maximum sentence stipulated in law**.
  - ◆ The outcome may also involve **payment of compensation** and other expenses to the victim by the accused.

#### ■ Arguments in Favour:

- As per the **Justice Malimath Committee** on reforms of the criminal justice system (formed in 2000):
  - ◆ This ensures **speedy trial**, ends uncertainty over the outcome of criminal cases, **saves litigation costs** and relieves the parties of anxiety.



# Nation & States

## Demand for 6<sup>th</sup> Schedule

### Status: Arunachal Pradesh

The recent revival of the demand for **two autonomous councils in Arunachal Pradesh** has led to the call for bringing the entire Arunachal Pradesh under the ambit of the **6<sup>th</sup> Schedule** or **Article 371 (A) of the Constitution**.

- Currently Arunachal Pradesh is **neither under 5<sup>th</sup> Schedule nor under 6<sup>th</sup> Schedule**. It is under the **Inner Line Permit (ILP) system**.
  - The **6<sup>th</sup> Schedule** is applied in **Assam, Meghalaya, Mizoram and Tripura**.
  - The **5<sup>th</sup> Schedule** areas are declared in the States of Andhra Pradesh, Telangana, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan.
- On the other hand, **Article 371 A** is applied in Nagaland which provides special status to Nagaland.

### Key Points

#### ■ 6<sup>th</sup> Schedule:

- The 6<sup>th</sup> Schedule of the Constitution provides for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram to safeguard the rights of the tribal population in these states. This special provision is provided under Article 244(2) and Article 275(1) of the Constitution.
  - ◆ The tribes in the above states have not assimilated much with the life and ways of the other people in these states. These areas still have the presence of anthropological specimens.
- Based on the reports of the **Bordoloi Committee** formed by the Constituent Assembly, the 6<sup>th</sup> Schedule was formulated to provide limited autonomy to the tribal regions of North-East.
  - ◆ The committee report stated that there was a need for a system of administration that would allow tribal areas to become developed.
  - ◆ The report also called for the protection of these tribal areas from exploitation by the people in the plains and preserving their distinct social customs.

#### ■ Administration in the 6<sup>th</sup> Schedule:

- The tribal areas in the 6<sup>th</sup> Schedule area have been constituted as autonomous districts. The autonomous districts have been given varying degrees of autonomy within the State Legislature.
  - ◆ There are 10 autonomous districts – three in Assam, Meghalaya and Mizoram and one in Tripura.
  - ◆ Each autonomous district can also have a separate regional council.

<b>MEGHALAYA</b> <ul style="list-style-type: none"><li>● Khasi Hills Autonomous District Council</li><li>● Jaintia Hills Autonomous District Council</li><li>● Garo Hills Autonomous District Council</li></ul>	<ul style="list-style-type: none"><li>● Mara Autonomous District Council</li></ul>
<b>MIZORAM</b> <ul style="list-style-type: none"><li>● Chakma Autonomous District Council</li><li>● Lai Autonomous District Council</li></ul>	<b>TRIPURA</b> <ul style="list-style-type: none"><li>● Tripura Tribal Areas Autonomous District Council</li></ul>
	<b>ASSAM</b> <ul style="list-style-type: none"><li>● Dima Hasao Autonomous Council</li><li>● Karbi Anglong Autonomous Council</li><li>● Bodoland Territorial Council</li></ul>

- The tribals have been given freedom to exercise legislative and executive powers through an autonomous regional council and **Autonomous District Councils (ADCs)**.
- The ADCs are empowered with civil and judicial powers. They can also make laws on matters like land, forests, fisheries, social security, etc. with due approval from the governor.
- The Acts passed by Parliament and state legislatures may or may not be levied in these regions unless the President and the governor gives her or his approval, with or without modifications in the laws for the autonomous regions.
- **Governor's Control:**
  - ◆ Despite various degrees of autonomy, the 6<sup>th</sup> Schedule area does not fall outside the executive authority of the state concerned.
  - ◆ The governor is empowered to organise and re-organise the autonomous districts. He can

# Economic Scenario

## Financial Stability Report: RBI

Recently, the **Reserve Bank of India (RBI)** released its **Financial Stability Report (FSR)** for the month of July 2020.

- The FSR reflects the collective assessment of the **Sub-Committee of the Financial Stability and Development Council (FSDC)** - headed by the Governor of RBI) on risks to financial stability and the resilience of the financial system.
- The Report also discusses issues relating to development and regulation of the financial sector.

### Key Points

#### ■ Increase in Bad Loans:

- The RBI warned that the **Gross Non-performing Assets (GNPA)** ratio of all Scheduled Commercial Banks (SCBs) may increase from 8.5% in March 2020 to 12.5% by March 2021.
- The GNPA ratio may also worsen to as high as 14.7% by the end of the current financial year, if the adverse economic impact of the **Covid-19 pandemic** would be 'very severe'.
- According to experts at least 5% of the **moratorium** loans could turn into NPA if Covid-19 impact persists in the economy.
  - ◆ In the wake of Covid-19, the RBI had announced a six months loan moratorium to all term loans. The moratorium was first given for March-May (2020) but was later extended to June-August (2020).
  - ◆ The **Covid-19 lockdown** had a significant impact on all industrial activities in the economy resulting in major income loss. This has impacted their loan repayment ability.

- This may lead to **Gross Domestic Product (GDP) contraction by 8.9%** in 2020-21.

#### ■ Decreasing Capital Adequacy Ratio:

- The RBI projected that **Capital Adequacy Ratio (CAR)** could slide to 13.3% in March 2021 under the normal scenario and to 11.8% under the very severe stress scenario.

- ◆ CAR is the **ratio of a bank's capital in relation to its risk weighted assets and current liabilities**. It is also known as Capital-to-Risk Weighted Asset Ratio (CRAR). Indian SCBs are required to maintain a CAR of **9%**.

- Earlier the CAR of SCBs decreased to 14.8% in March 2020, from 15% in September 2019.

#### ■ Risk Aversion by Banks:

- Risk aversion in Public Sector Bank (PSBs) was more as compared to private banks. PSBs chose to give money only to high-quality borrowers.
  - ◆ However, the risk aversion tendency is also increasing in private banks.
- RBI has warned that extreme risk aversion would have adverse effects on the economy.

#### ■ Risk to Financial System:

- The RBI said that the Indian financial system remained stable, despite the significant downside risks to economic prospects.
- The downside risks to short term economic prospects are high due to the lockdown induced disruptions to both supply and demand side factors, diminished consumer confidence and risk aversion.

#### ■ Issues Involved:

- Recently, the former RBI Governor Urjit Patel has criticised the government for diluting the **Insolvency and Bankruptcy Code (IBC)** and the powers of the RBI.
  - ◆ He has said that this has undermined the efforts made since 2014 to clean up the bad loan mess.
- The government uses ownership of banks as a means for day-to-day macroeconomic management rather than primarily for efficient intermediation between savers and borrowers.
- Banks have poor asset quality, lack of profitability, loss of capital, excessive risk exposure, poor conduct, and liquidity concerns.
- There is also a **lack of a mechanism** to address bank failures.

# International Relations

## Israel-UAE Peace Deal

Recently, the President of the USA has announced that **Israel and the United Arab Emirates (UAE)** have **agreed to establish full diplomatic ties** as part of a deal to **halt the annexation of occupied land sought by the Palestinians** for their future state.

- Both the UAE and Israel are the **USA's close allies in West Asia**.

### Who supports whom

■ Saudi side ■ Iran side ■ Split\* ■ Non-aligned



\*Syria: Govt pro-Iran, opposition pro-Saudi. Lebanon: Hezbollah pro-Iran, main Sunni bloc pro-Saudi. Yemen: Govt-in-exile pro-Saudi, Houthi rebels pro-Iran

### Key Points

- The UAE has become the **first Gulf Arab state** to do so and only the **third Arab nation to have active diplomatic ties with Israel**.
  - **Egypt** made a peace deal with Israel in **1979**, followed by **Jordan** in **1994**.
- Under the deal, **Israel would suspend its plans to annex large parts of the occupied West Bank**.
  - The West Bank is **sandwiched between Israel and Jordan**. One of its major cities is **Ramallah**, the **de facto administrative capital of Palestine**.
  - Israel took control of it in the **Six-day Arab-Israeli war, 1967** and has over the years established settlements there.
- A **joint statement from the USA, the UAE and Israel** has been issued which says that **delegations would**

**meet in the coming weeks** to sign deals on direct flights, security, telecommunications, energy, tourism and health care.

- Both nations will also partner on fighting the **Covid-19 pandemic** together.
- It **remains unclear** what prompted Israel and the UAE to make the announcement now.
  - In June 2020, the UAE's ambassador to the USA **warned that Israel's plan to annex the Jordan Valley and other parts of the occupied West Bank would upend Israel's efforts to improve ties with Arab nations**.
- **Background:**
  - **Formed in 1971**, the **UAE is a USA-allied federation of seven sheikhdoms** on the Arabian Peninsula which **did not recognise Israel** over its occupation of land home to the Palestinians.
  - The **UAE relied on white-collar** (people who perform professional, desk, managerial or administrative work) **Palestinians** in creating its nation and **maintained its stance that Israel should allow the creation of a Palestinian state** on land it seized in the **1967 war**.
  - In recent years, **ties between Gulf Arab nations and Israel have quietly grown**, in part over their **shared enmity of Iran and the Lebanese militant group Hezbollah**.
  - The **UAE also shares Israel's distrust of Islamist groups** like the **Muslim Brotherhood** and the **militant group Hamas** that holds the Gaza Strip.
- **Impact on the UAE:**
  - The deal **smoothens the UAE's international campaign** to be seen as a beacon of tolerance in the Middle East despite being governed by autocratic rulers.
  - It **puts the UAE out first in a regional recognition race** among neighbouring Gulf Arab states.
- **Impact on Israel:**
  - The announcement **justifies** the year-long claims of Israeli Prime Minister Benjamin Netanyahu that his **government enjoys closer ties to Arab nations** than publicly acknowledged.

# Environment & Ecology

## World Solar Technology Summit: ISA

### Why in News

The **International Solar Alliance (ISA)** will organise the **First World Solar Technology Summit** on 8<sup>th</sup> September, 2020 on a virtual platform.

- The objective of the event is to bring the spotlight on state-of-the-art technologies as well as next-generation technologies which will provide impetus to the efforts towards harnessing **solar energy more efficiently**.

### Key Points

#### ■ Key Participants:

- The Prime Minister of India will deliver the inaugural address of the First World Solar Technology Summit.
- **Dr. M. Stanley Whittingham** who was awarded the **Nobel Prize in Chemistry (jointly with John B Goodenough & Akira Yoshino) in 2019** for the revolutionizing discovery of the **lithium ion batteries**.
- CEOs of top global corporations will share their vision on how scientific breakthroughs and innovations can be commercially made available to all parts of the world for wider consumption.
- **Four Sessions:** The event will hold four technical sessions that would be available to the participants in different languages namely English, Spanish, French & Arabic.
  - **Session -1: Vision 2030 & Beyond:** The overall context of Photovoltaic (PV) technology development and its future, on its way towards becoming the first source of energy worldwide, with PV technologies supplying 70% of the world's electricity generation.
  - **Session -2: Towards a Decarbonised Grid:** The most recent advances (conversion efficiency improvements and declining costs) regarding key components such as PV modules and storage technologies.

- **Session -3: Disruptive Solar Technologies:** On-grid applications, whether ground-mounted, floating, or integrated in residential and commercial rooftops.

- **Session -4: Solar Beyond the Power Sector:** Innovative applications where PV is used to move, heat, cool, and drive eco-friendly industrial processes and produce fuels as well as off-grid applications, to provide universal access to energy.

#### ■ I JOSE:

- ISA would also launch the **ISA Journal on Solar Energy (I JOSE)** that would help authors from across the globe to publish their articles on solar energy, during the event.

## India's Solar Energy Initiatives

- Solar energy has taken a central place in India's National Action Plan on Climate Change with the **National Solar Mission** as one of the key Missions.
  - **National Solar Mission (NSM)** was launched on **11<sup>th</sup> January, 2010**.
  - Its objective is to establish India as a global leader in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible.
  - It targets installing **100 GW grid-connected solar power plants by the year 2022**. This is in line with India's **Intended Nationally Determined Contributions (INDCs)** target to achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.
- In order to achieve the above target, the Government of India has launched various schemes to encourage generation of solar power in the country like Solar Park Scheme, Canal bank & Canal top Scheme, Bundling Scheme, Grid Connected Solar Rooftop Scheme etc.
- Solar power capacity has increased by more than 11 times in the last five years from 2.6 GW in March, 2014 to 30 GW in July, 2019.

# Science & Technology

## Russian Covid Vaccine: Sputnik V

Recently, Russia has become the first country to officially register a **Covid-19 vaccine** and has declared it ready for use.

### Key Points

- The vaccine has been called **Sputnik V**, named after the **first artificial Earth satellite, Sputnik-I** launched by the Soviet Union.
- It is the **first Covid-19 vaccine to be approved**.
  - However, a Chinese vaccine had been cleared for 'limited use' before this. It is an **adenovirus vector vaccine** approved to be administered only on soldiers of the **People's Liberation Army**.
- The Russian vaccine has outrun other Covid-19 vaccines like **Oxford-AstraZeneca, Moderna and Pfizer** which are still in trials.
  - India's **Covaxin** has been approved for human clinical trials. Another Indian vaccine **ZyCoV-D** has entered phase I/II of clinical trials.
- This vaccine has been developed by Moscow's **Gamaleya Institute** in collaboration with Russia's defence ministry.
- The vaccine is based on the **DNA** of a **SARS-CoV-2** type **adenovirus**, a common cold virus.
- **Adenovirus Vector Vaccine:**
  - In this vaccine, adenovirus is used as a tool to deliver genes or vaccine antigens to the target host tissue.
  - **Adenovirus:** Adenoviruses (ADVs) are **DNA viruses** ranging from 70-90 nanometre in size, which induce many illnesses in humans like cold, respiratory infection, etc.
  - Adenoviruses are preferred for vaccines because their DNA is **double-stranded** which makes them **genetically more stable** and the chances of them changing after injection are lower.
    - ◆ The **rabies vaccine** is an adenovirus vaccine.
  - However, there are drawbacks of adenovirus vector vaccines like **pre-existing immunity in humans, inflammatory responses, etc.**
- **Concerns Regarding the Vaccine:**
  - Experts expressed concerns over the safety and efficacy of the vaccine due to its **extremely fast production and lack of published data** on the vaccine.
  - Russia has only made **public** the **results of phase-I** of the clinical trials, which it claimed were successful and produced the desired immune response.
  - The human trials, which take several years in normal circumstances, have been completed in less than two months for Sputnik V. The late-phase human trials are important because the vaccine's efficacy can differ on different population groups.
  - Russia, however, has claimed that this was made possible due to the fact that its Covid-19 vaccine candidate closely resembled a vaccine for **Middle East Respiratory Syndrome (MERS)** disease, caused by another coronavirus, that had already been tested extensively.
- **Use in India:**
  - Russia has claimed that around 20 countries have shown interest in the Sputnik V vaccine, including India.
    - ◆ India has also **partnered with the USA** for development of Covid-19 vaccine.
  - The approval for a vaccine is given by the **Central Drugs Standard Control Organisation (CDSCO)**.
    - ◆ CDSCO can ask Russia to **conduct late-phase human trials**, usually both phase-2 and phase-3, on an **Indian population**.
    - ◆ This is the usual requirement for all vaccines developed outside of India.
  - CDSCO can also give **emergency authorisation** without late-phase trials, considering the extraordinary situation.
    - ◆ The drug **remdesivir** was recently granted similar emergency approval to be used as a therapeutic on novel coronavirus patients.
  - However, this is unlikely as vaccines are given to a large number of people and the risks involved are much higher.

# History, Art & Culture

## Bal Gangadhar Tilak

On 23<sup>rd</sup> July, India paid tribute to the freedom fighter and educationist **Bal Gangadhar Tilak** on his **birth anniversary**.



### Key Points

- **Birth:** He was born on **23<sup>rd</sup> July 1856** in Ratnagiri, Maharashtra.
  - Freedom fighter and lawyer, Bal Gangadhar Tilak, is also known as **Lokmanya Tilak**.
- **Educationist:**
  - Founder of the **Deccan Education Society (1884)** along with his associate Gopal Ganesh Agarkar and others.
  - One of the founders of the **Fergusson College (1885)** in Pune through the Deccan Education Society.
- **Ideology:**
  - He was a devout Hindu and used Hindu scriptures to rouse people to fight oppression.
  - Stressed on the **need for self-rule** and believed that without self-rule or swarajya, no progress was possible.
    - ◆ **Slogan:** "Swaraj is my birthright and I shall have it!"
    - ◆ A book '**Indian Unrest**' written by **Valentine Chirol**, an English journalist, stated **Tilak the 'father of Indian unrest'**.
  - Emphasised the importance of a cultural and religious revival to go with the political movements.
    - ◆ Popularised the **Ganesh Chaturthi festival** in the Maharashtra region.
    - ◆ Propounded the **celebration of Shiv Jayanti** on the birth anniversary of the monarch Chhatrapati Shivaji.
- **Political Life:** He was one of the earliest and the most vocal proponents of complete independence or swarajya (self-rule).
  - Along with **Lala Lajpat Rai and Bipin Chandra Pal**, he was part of the **Lal-Bal-Pal trio** of leaders with extremist outlooks.
  - Joined the **Indian National Congress (INC)** in 1890.
- **Surat Split:** It was the splitting of the INC into two groups - the Extremists and the Moderates - at the Surat session in 1907.
  - **Reason:** The extremists wanted either **Tilak or Lajpat Rai to be president**, so when **Rasbehari Ghose was announced as president**, the extremist resorted to violence. Hence Surat Split happened.
  - While **extremists** wanted to end the tyranny rule of British through protest, **Moderates** were aimed at administrative and constitutional reforms.
  - The **Extremist camp was led by Lal Bal and Pal** and the **moderate camp** was led by **Gopal Krishna Gokhle**.
- **Contribution to Freedom Movement:**
  - Propagated **swadeshi movements** and encouraged people to boycott foreign goods.
  - **Indian Home Rule Movement:**
    - ◆ It was a movement in British India on the lines of Irish Home Rule movement.
    - ◆ Started in 1916, it is believed to have set the stage for the independence movement under the **leadership of Annie Besant and Bal Gangadhar Tilak** for the educated English speaking upper class Indians.
  - **All India Home Rule League:** Founded by Tilak in April 1916 at Belgaum.
    - ◆ It worked in **Maharashtra (except Bombay), the Central Provinces, Karnataka and Berar**.

# Social Issues

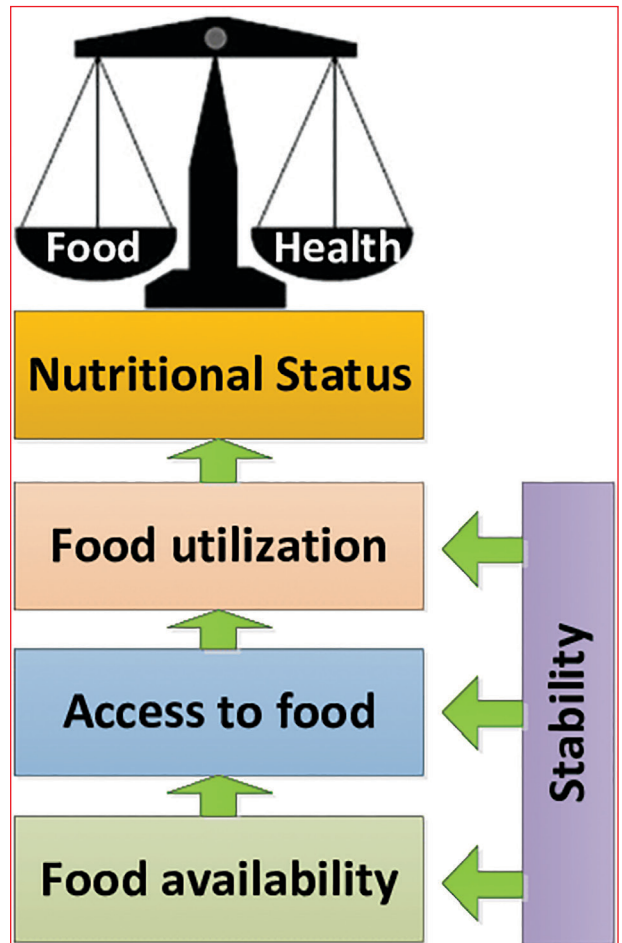
## Higher Food Prices and Nutrition Security

Recently, the **Tata-Cornell Institute for Agriculture and Nutrition in New York** has conducted a study titled **“Pandemic Prices: Covid-19 Price Shocks and their Implications for Nutrition Security in India”**.

- It analysed prices of cereals (wheat and rice) and non-cereals (onion, tomatoes, potatoes, five pulses and eggs) in 11 tier-1 and tier-2 cities from 1<sup>st</sup> March-31<sup>st</sup> May 2020 compared to the same period in 2019.

### Key Points

- Following the **lockdown**, all food groups witnessed a **rise in prices**, but the rise in prices was higher for non-cereals compared to cereals.
- After the **lockdown was lifted**, prices of cereals and non-cereals stabilised quickly while those of protein-rich pulses continued to remain high.
- **Data Analysis:**
  - **Wheat and Rice:** Retail prices were either stable or cheaper than weeks preceding the lockdown and last year.
  - **Potato, Onions and Tomatoes:** The prices went high initially but later on stabilised. Onion prices went as high as 200-250%.
  - **Eggs:** The prices fell initially (because of fear of coronavirus through poultry) but increased by March-end and then stabilised two months later.
  - **Pulses:** The prices rose during the lockdown and continued to remain higher than the pre-Covid-19 levels.
- **Concerns:**
  - The relative stability in cereal prices and enhanced prices of pulses will most likely **distort spending and consumption decisions** resulting in a **staple-based, protein-deficient diet** hampering the **food security** in the country.
  - The relatively higher prices of more nutritious food make it **difficult for the poor and marginal population to access** such nutrient-rich food.
    - ◆ As a result, the proportion of such foods in the diets goes further down and is **replaced by less nutritious and calorie-dense foods**.



- It will **worsen the nutritional status of women and children** across India, and more so in the impoverished regions of the country.
- The study also **criticised the amendment to the Essential Commodities Act, 1955** which **deregulated** cereals, edible oils, oilseeds, pulses, onions and potatoes.
- **Suggestions:**
  - The government can **ensure the provision of supplementary protein by timely interventions to stabilise** the increase in prices.
  - Policies that **insulate non-staple supply chains from price shocks and fluctuations** are necessary.
  - **Abolishing outdated restrictions to address farm sector bottlenecks** is very important.



## DID YOU KNOW?

### Asteroid 2020 ND

Recently, the **National Aeronautics and Space Administration (NASA)** has issued a warning that a huge “**Asteroid 2020 ND**” will move past Earth on 24<sup>th</sup> July.

- Asteroids are small bodies made up of metals and rocks, that orbit the Sun
- Asteroid 2020 ND is about 170 metres-long, will be as close as **0.034 Astronomical Unit (AU- Astronomical Unit is the distance between the Earth and the Sun and is roughly 150 million km) to the Earth.**
- It is a **Near-Earth Objects (NEO)** and its distance from Earth has placed it in the **Potentially Hazardous Asteroids (PHA)** category. PHA means that an asteroid has the potential to make **threatening close approaches** to the Earth.
- **Solutions** include deflecting or blowing up Asteroids, **AIDA** or monitoring them on whether they will strike the Earth or not
- **AIDA:** The measure undertaken so far is the **Asteroid Impact and Deflection Assessment (AIDA)**, which includes **NASA’s Double Asteroid Redirection Test (DART) mission** followed by European Space agency’s Hera.
  - **DART :** It is a planetary defense-driven test of technologies for preventing an impact of Earth by a hazardous asteroid, scheduled to launch in 2021 with an aim to slam into the smaller asteroid of the **Didymos system.**
  - **Hera:** It is a **probe** that will launch in 2024 to measure the **impact crater produced by the DART collision** and study the **change in the asteroid’s orbital trajectory.**

### Mega Covid-19 Testing Lab

The **Council of Scientific and Industrial Research (CSIR)** is working on developing mega labs to speed up testing as well as improve the accuracy of testing for **Covid-19** positive cases.

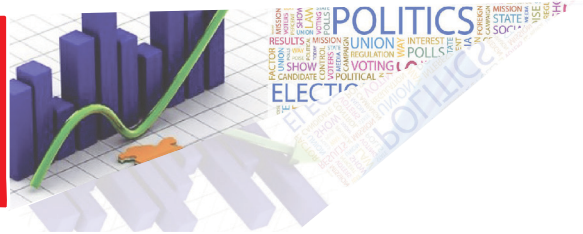
- Large machines, called **Next Generation Sequencing (NGS) machines** will be modified to sequence 1,500-3,000 viral genomes at a go for detecting the novel coronavirus (SARS-CoV-2) in these labs.
- **Benefits:**
  - **Accuracy:** The NGS tests have a sensitivity of 97.53% as compared to 70%-80% accuracy of the **Reverse Transcription Polymerase Chain Reaction (RT-PCR)** and 50% accuracy of **antigen tests.**
  - **Confirmation:** NGS identified cases as either positive and negative when RT-PCR found them to be ‘**inconclusive**’. So, this can also be used as a **confirmatory test.**
  - **Reliability:** It can also trace the evolutionary history of the virus and track mutations more reliably.
  - **Mass Testing:** According to the **Indian Council of Medical Research (ICMR)**, the NGS tests can space up from the present approx. 7.5 lakh tests per day to at least a **million per day.**
  - **Other Uses:** Establishing “hubs” capable of **whole-genome sequencing** would help track significant mutations in the virus and can be repurposed for any kind of outbreak, be they of viral or bacterial origin.
    - ◆ NGS can also be used to develop **new diagnostic tests for Covid-19.**
  - **Surveillance and Tracing:** Due to the limited accuracy and capacity of existing tests, a sizeable population is **falsely negative.** NGS can help in continuous surveillance of large pools like industrial hubs, commercial establishments or places where an outbreak is likely.

### SalivaDirect: Covid-19 Test

The **USA Food and Drug Administration (FDA)** has authorised the emergency use of a **new saliva-based laboratory diagnostic test for Covid-19 - ‘SalivaDirect’.**



# ECONOMIC AND POLITICAL WEEKLY



SUMMARY OF EDITORIALS AND ARTICLES: 30 MAY, 6, 13, AND 20 JUNE

## What Ails India's Data Economy?

Data is the new currency. Drawing parallels between existing taxation and data structures help us to understand how data is being monetised by the government and private firms. The Economic Survey, 2020 hinted at the state's attempt to monetise personal data, essentially making data a commodity.

### Data Taxation

- Like taxation, data collection or data taxation is important for the state to perform its functions.
- It is essential to collect basic demographic details, for something as routine as issuing a driving licence.
- But, unlike revenue collected as tax, data collected by the government can be double-spent (that is, it can be sold to multiple entities), and can be linked with other data sets to derive a new value.

### Digital Identifiers

- Analogous to tax identifiers, like Permanent Account Number (PAN), bank accounts, among others, that are used to track a person's or an organisation's incomes and to levy taxes, digital identifiers are mandated by the law across digital platforms for service delivery.
- These include mobile numbers, device IDs (identity documents), digital IDs, social media account identifiers, among others.
- While some identifiers are essential in certain contexts, forced cross-linking, such as Aadhaar-mobile linkage which was subsequently struck down by the Supreme Court.

### Data Taxation Systems

- Like direct and indirect taxes from revenue, data is collected directly and indirectly about persons through various systems.
  - The government **directly** collects various kinds of data, be it income details for income tax, socio-economic data for welfare schemes, specific details like maternal health parameters for providing maternal and child care and subsidies.

- Data can also be collected from us through **indirect** means, such as goods and services tax (GST) invoices providing travel history, cash transaction data, among others.
- Such data is routed to the **Financial Intelligence Unit**, which is an executive agency for the prevention of money laundering activities.
- Therefore, unlike a monetary tax, in data tax, digital identifiers can be used as a common foreign key to cross-link and share data between various government and/or private entities, and the emerging cumulative data can be used by multiple parties.

### Data Revenue

- Analogous to monetary revenue, data revenue comes directly and indirectly to the government from both individuals and entities.
  - Census, Aadhaar enrolment, applications for caste and income certificates, income tax filings, among others are direct means to collect data from individuals.
  - Indirect means include know-your-customer (KYC) details, public records, such as crime data, court records, among others.

### Data Expenditure

- **Data triangulation**, a method through which different revenue data sets are cross-linked, has been proposed in the recent GST Council meeting to identify tax evaders in the system.
- While illegal repurposing and the diversion of monetary revenues for private purposes would be called a scam, however, repurposing data is not treated as one, even though privacy is declared as a fundamental right.

### Data Centralisation

- Analogous to how there is an increased focus on fiscal centralisation, both through centralised taxation systems, such as GST, and the increasing centrally



### Philosophical Nature of Indian Music

The Indian music has contributed in a significant way towards the development of composite culture of India. The Indian Classical Music, be it Hindustani or Carnatic, has a spiritual background.

#### Origin of Indian Classical Music

- It can be traced back to chanting of Vedic hymns or mantras. Chandogya Upanishad talked about seven styles of gana or musical modes.
- In post vedic times, Natya Shastra of Bharat Muni had created a compilation from Vedas. This further gave contribution to Gandharva Veda, that is Vedic science of music.
- Around the 10<sup>th</sup> Century CE by Acharya Abhinavgupta of Kashmir noted the difference between religious Gandharva and universal Dhruva Gana.
- One of the earliest references to Ragas used in the Indian Classical music can be found in the Buddhist textual source of the 10<sup>th</sup> century. It is a manuscript of Charyagiti (performance-songs) obtained from Tibet, and is attributed to the 8<sup>th</sup> century CE Mahasiddhas Sarahapa.
- In the southern part of India, Prabandha-gana was the popular performing genre that existed between the 11<sup>th</sup> and 16<sup>th</sup> centuries.
- In the north eastern parts of India, Sankardev of Vaishnava tradition devised many traditional songs like Borgeet and dane (Sattriya).
- Sikhism is perhaps the only religion in the world that uses music as its chief mode of worship. Using different styles, Sikh kirtans are rendered in the Raga and Tala of Indian classical music.

#### Emergence of Khayal Music

- The development of Khayal Music in Hindustani style appears around the 17<sup>th</sup> century.
- It was an offshoot of its precursor music called Dhruwad.

- Majority of Khayal artists were Muslim and their vocabulary derived from Urdu.

#### Ragamala: Visual Art and Classical Music

- It is an amalgamation of Indian classical music with visual art and poetry that helped in evolution of the Ragamala painting series of medieval India.
- It was a form of Indian miniature painting that depicted various Indian musical modes or ragas.

#### Conclusion

We can observe that the specific cultural forms and historical traditions have contributed to the emergence of epistemological diversity of Indian Music. This has resulted in the development of distinctive world-views that outline the cultural framework and assumptions behind the production of Indian classical music.

### Temple Inscription of Tamil Nadu

There are more than 50,000 lines of inscriptions in Tamil Nadu. None of them are concerned with religion, philosophy or mythology. They present the diverse issues that were present around 1000 years ago in Tamil Nadu.

#### Key points

- Most inscriptions deal with local administration of land and water. They are about disputes or allocations or gifts.
- Administration in medieval Tamil Nadu was very orderly and the level of freedom local villages had was unprecedented by today's standards.
- An inscription from Shiva temple of Manur, Triunelveli mentions the village night assembly in nature or Judicial or legislative assembly.
- Village assemblies were formed of qualified and elected from stringent norms.
- Some inscriptions mention hospitals/medical institutions supported by temples. The Perumal temple near Kanchi had a hospital.



## GIST OF MAJOR ARTICLES FROM THE AUGUST 2020 ISSUE

### Rebooting Rural Economy

India is predominantly a rural country with two-thirds of its population and 70% of its workforce residing in the rural areas and where the rural economy constitutes 46% of Indian economy.

#### COVID-19 and the Economy

- With the outbreak of COVID-19 pandemic, the world has witnessed unprecedented crisis in the areas of consumption, manufacturing, exports, and capital flows which has posed numerous challenges before the economy in general and the rural economy in particular.
- The government has launched 'Self-Reliant India Mission' with special focus on health care, employment and financial support.
- The package provides enough budget for emergency healthcare requirements of the hospitals, safeguarding the employees during and post-crisis.

#### Doubling of Farmers' Income by 2022

- The government has set up the Inter-Ministerial Committee on Doubling Farmers' Income (DFI) to examine the issues and challenges for the target.
- The committee identified seven sources to double the farmers' income by 2022 which include:
  - Improvement of crop productivity;
  - Improvement in livestock productivity;
  - Efficiency in the use of resources/savings in the cost of production;
  - Increase in crop intensity;
  - Shift from farm to non-farm occupations like poultry, dairying, fisheries, etc.
  - Diversification towards high value crops, etc.
- Several steps have been already taken to implement the recommendations of DFI committee:
  - Supporting contract farming through Model Contract Farming Act, upgrading Gramin Haats to works as centres of aggregation;
  - Providing e-NAM to farmers;

- Distributing social health cards to improve the rational use of fertilisers;
  - Increasing water efficiency through PM Krishi Sinchai Yojana "Per drop more crop";
  - Insurance coverage under PM Fasal Bima Yojana;
  - Increase in Minimum Support Prices (MSPs) for all Kharif and Rabi crops, etc.
- Besides these, the government amended Essential Commodities Act to remove commodities like cereals, pulses, edible oil, etc. from the list.

#### Atmanirbhar Bharat Abhiyan

- The DFI by 2022 drive got a boost through the economic package under this abhiyan.
- Some of the provisions made under this abhiyan are:
  - 25 lakh new Kisan Credit Cards with a loan limit of ₹25000 crore.
  - Approximately 63 lakh loans worth ₹86,000 crores.
  - Support to Rural Infrastructure Development Fund to states.
  - Emergency Credit Line Guarantee Scheme especially for MSMEs to come out of the stress of the pandemic.
  - MGNREGA has emerged as an efficient tool to fight the unemployment crisis especially in the rural sector, etc.

#### Government Schemes in

##### Sync with the Atmanirbhar Bharat

- **Coir Udyami Yojana:** This is a credit linked subsidy scheme for setting up coir units with project cost upto ₹10 lakhs.
- **Skill Upgradation and Mahila Coir Yojana:** Aimed at development of domestic and export markets, skill development, empowerment of women, employment creation, etc.
- **PM Employment Generation Programme:** This scheme is composed of two schemes, viz. PM Rojgar Yojana and Rural Employment Generation Program. It is a credit linked subsidy programme.

# DOWN TO EARTH



GIST OF MAJOR ARTICLES FROM 31 JULY AND 15 AUGUST ISSUES

## Politics of Recycling Plastic

COVID-19 is all-subsuming; it makes it difficult to think or act on issues that made up our world yesterday and will stay in our world of tomorrow. One such issue is that of plastic.

### Plastic usage

- It is reported that prior to the 2018 ban, 95% of the European Union's and 70% of USA's plastic waste collected for recycling was sold and shipped to China.
- The dependence on China meant that recycling standards had become slack-food waste was mixed with plastic and the industry had excelled in creating new products, design and colours of the waste.
- India's plastic waste problem is not as huge as the rich world, but it is growing.
- The latest annual report of the Central Pollution Control Board on plastic waste tells it all - while rich states like Goa produce as much as 60 grams of plastic per capita per day; Delhi is catching up with 37 grams per capita per day.
- The national average is around 8 grams per capita per day. In other words, as societies become more affluent, they will become more wasteful. This is the ladder of wealth we must not aspire to climb.
- However, given the huge litter of plastic we can already see in our cities, it is clear we cannot get sanguine about the fact that we will catch up - collect more; recycle more.

### Politics about recycling

- The industry has managed to convince policymakers that plastic waste is not a problem as we can recycle virtually everything. It's a bit like tobacco - if we stop smoking, farmers will be affected.
- If we stop using plastic, the recycling industry - run by a small industry; working often in the informal sector; and, using the poorest people who work in the most abysmal conditions - will collapse.
- All studies show that the plastic waste in drains or in landfills comprises the least recyclable material - this

is multi-layered packaging (foodstuff of all kinds), sachets (guttika or shampoo) and plastic bags.

- The 2016 Plastic Management Rules recognised this and said that sachets would be banned and all multi-layered plastic use would be phased out in two years.
- In 2018, this was fatally amended - now only waste that is non-recyclable, and if there is any of this at all, needs to be phased out.

### Conclusion

The fact is that recycling of plastic needs careful segregation at the household level; this puts the onus on us and the local bodies. So, it's time we dismembered and took apart the world of recycling.

## Why should India Worry About a Warming Arctic?

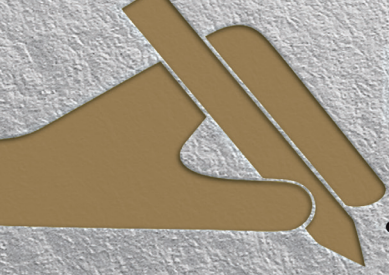
The Siberian town of Verkhoyansk, known for the largest temperature range in the world from - 67 °C to 37 °C, got scientists worried when on June 20 it recorded the highest temperature in the Arctic circle in the last 140 years at 38°C.

### Key points

- The region, warming at twice the rate as the rest of the world, has faced repeated heatwaves in the last few months, with Siberia recording some 10°C more than the normal in May 2020.
- The Arctic warming increases the north-south migrations of the polar jet stream, a permanent band of winds over the region.
- The jet stream is like the fence between the cold high-pressure air of the Arctic and the warm low-pressure air of the subtropics. If this fence swings north-south then the cold and warm air follows the jet stream.

### Impacts over India

- The impacts of a warming Arctic can be felt as far as in India in various ways.
- For instance, Western Disturbances respond to the pressure variations associated with the jet stream swings.



# ESSAY WRITING

## COMPETITION

“A drop of ink may make a million think.”

- PAPER-I (250 Marks, UPSC CS Main Examination): “Essay: Candidates may be required to write essays on multiple topics. They will be expected to keep closely to the subject of the essay to arrange their ideas in orderly fashion and to write concisely. Credit will be given for effective and exact expression.” That is what the UPSC says about the Essay paper in the CSE notification. Through an essay, the commission wants to know if you will make the right civil servant who has balance of judgement, variety and depth of interest, logical exposition and other such bureaucratic qualities.
- Keeping this in mind, we present a forum where you are asked to practice your writing skills by writing essays on the given topics. The topics are decided keeping in view the thematic trends in CS (Mains) examination.
- If that is not all, the best essays shall be rewarded and published. We’ll judge the essay based upon four parameters viz. Structure of the essay, Content, Flow and Language.
- The prize details are as follows:

**First Prize: 6 Months Subscription**

**Second Prize: 4 Months Subscription**

**Third Prize: 2 Months Subscription**

### Essay Writing Competition—53

#### Topic:

*‘Indian culture today: a myth or a reality?’*

#### Terms and Conditions—

1. The essay shall be of length between 1000-1200 words.
2. It should be neatly written or printed on A4 sheets.
3. Only one entry per participant is allowed.
4. Entries are to be sent by Registered/speed post only on following address: EXECUTIVE EDITOR, DRISHTI CURRENT AFFAIRS TODAY, 641, FIRST FLOOR, DR. MUKHERJEE NAGAR, DELHI-110009. Please mention ‘For Essay Competition’ in capital letters on the envelope.
5. Remember to submit your personal details on the form printed on this page after neatly tearing it off the marked pointers. Submissions without this form shall not be entertained.
6. Your essay must reach the given address before **20<sup>th</sup> September, 2020**. Entries reaching us after the given date will not be accepted.
7. Essays should be original and not plagiarized or copied except for properly quoted references. Prior published or awarded essays will not be accepted.
8. All rights related to the results of the competition are secure with ‘Drishti Current Affairs Today’. The winners shall be announced in the subsequent issue of the magazine and the winners shall be contacted by email and telephone.
9. Copyrights of the rewarded essays will lie with the magazine which may be used in any way by ‘Drishti Publications’.



### Form for Essay Competition-53

*(Kindly cut and attach this form along with your essay. Use original form and not photocopy.)*

Name of participant: ..... Mobile no. ....

Address: .....

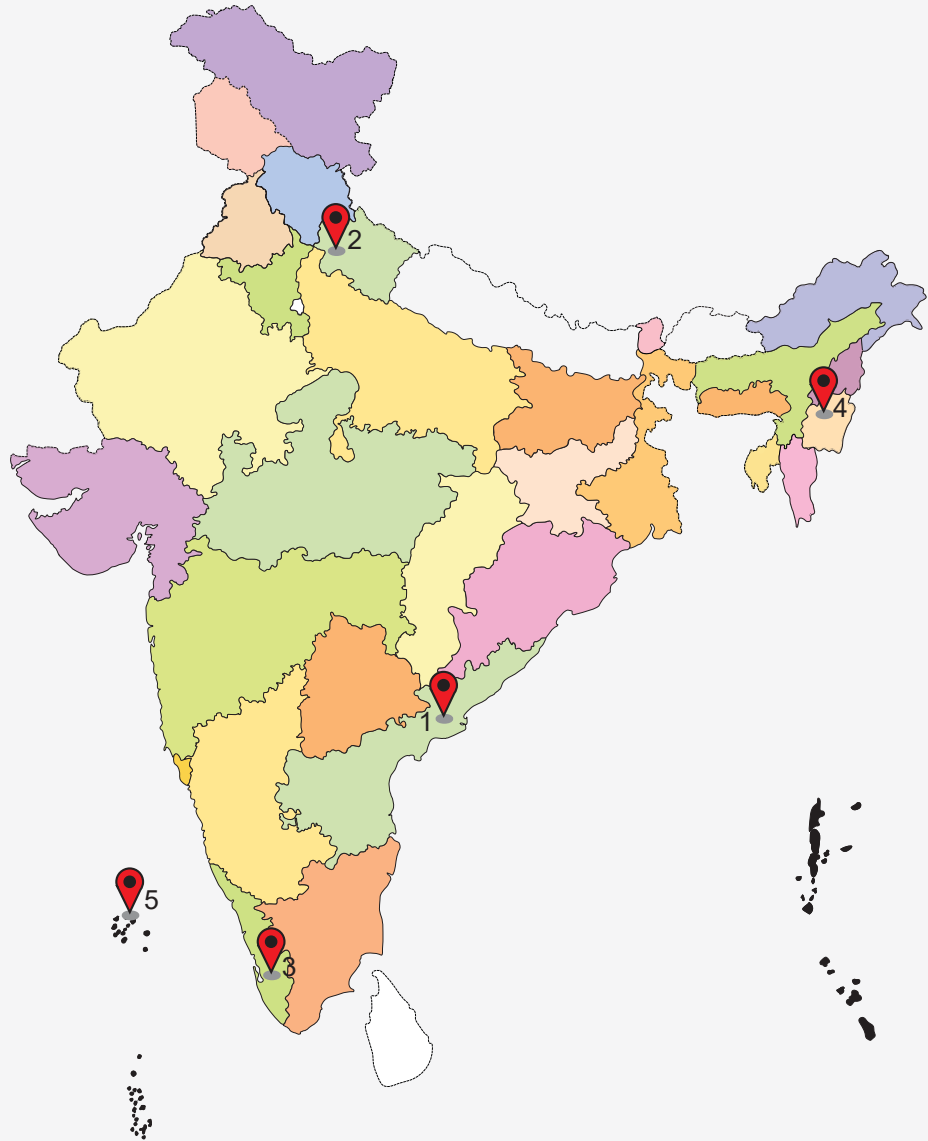
.....

Pin code: ..... Email ID: .....



# LEARNING

MAP-1

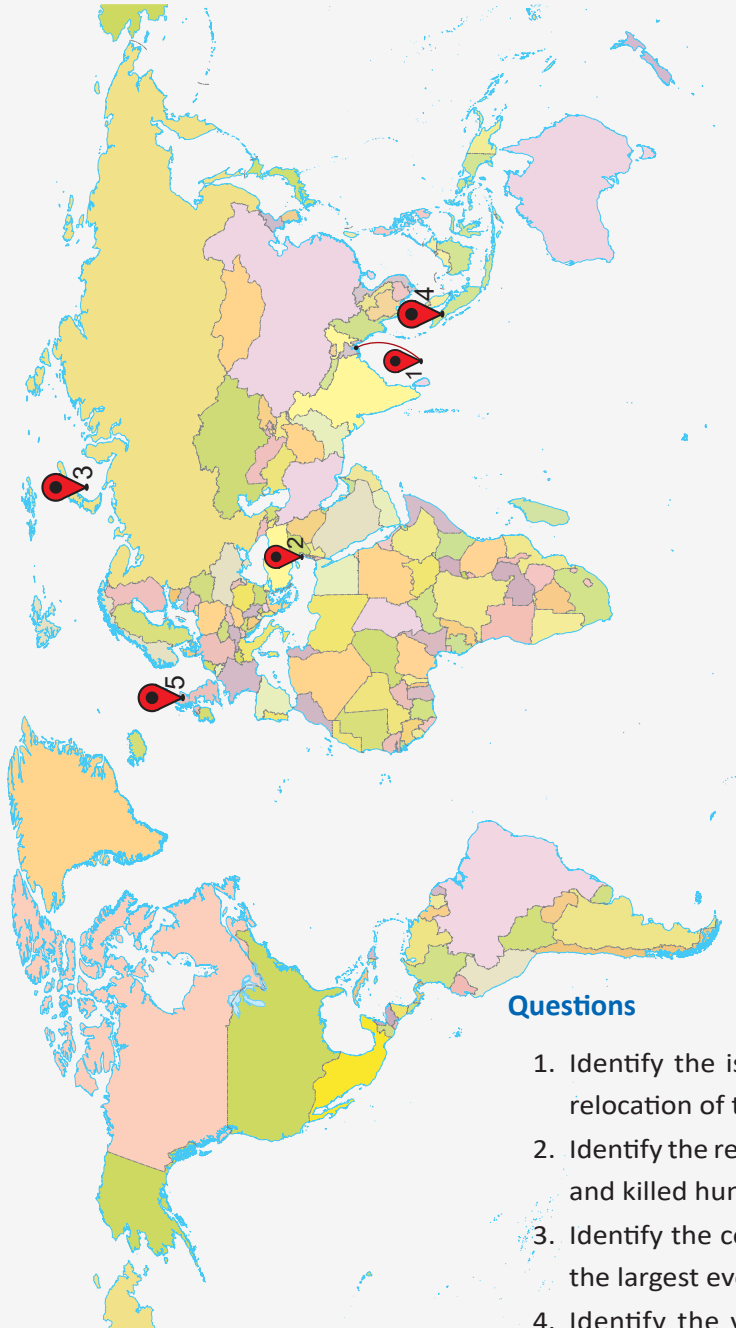


## Questions

1. Identify the region where rare fish Mahseer has been sighted.
2. Identify the State where the first Snow Leopard Conservation Centre will be developed.
3. Identify the State where WWF organised the Dragonfly Festival.
4. Identify the State where Indian Railways is constructing the World's tallest pier bridge.
5. Identify the Indian island which will be connected to the mainland through Optic Fibre Link.

*(Answers : Refer to Page No. 178)*

# THROUGH MAPS



## Questions

1. Identify the island of Bangladesh designated for the relocation of the Rohingyas.
2. Identify the region where Ammonium Nitrate exploded and killed hundreds.
3. Identify the country which released a testing video of the largest ever Hydrogen bomb.
4. Identify the volcano which has recently erupted in Indonesia.
5. Identify the European country which has decided to mint the coin of MK Gandhi.

*(Answers : Refer to Page No. 178)*



# TO THE POINT

Designed to hit the bull's eye: Point wise, short, crisp material in an easy-to-understand format.

## Atma Nirbhar Bharat: Vocal for Local

Recently, the Prime Minister launched a mission to make India a self-reliant country with a slogan of "Vocal for Local".

### The Concept of Atma Nirbhar Bharat

- The focal point of the concept is to make the nation self-reliant with more focus on local manufacturers and service providers. This will strengthen the economy, improve the standard of living and most importantly improve the trade deficit and the exchequer balance of the country.
- Making the country self-reliant in all spheres - from manufacturing to supplying. It will help the country to reduce its dependence on imports and will also give a boost to exports.
- To illustrate, in the 1960s, India decided to be self-sufficient in grain production as we were dependent on the USA for it. This objective helped in bringing about the famous Green Revolution in India.
- The Mission will be based on five pillars: Economy; Infrastructure; System; Vibrant Demography; and Demand.

### Need of Atma Nirbhar Bharat

- It will give a boost to the domestic industry and help in their growth to be able to become qualitatively and quantitatively well-off.
- Giving a boost to the domestic sector will be helpful in absorbing the unemployed youth of India.
- Defence equipment with state-of-the-art technology are mostly imported which puts India's line of defence at some risk. Producing them within the country with indigenous technology will be of utmost importance for the defence of India.
- India is the second largest consumer market of the world. Capturing the market with a boost in the local products will help in enhancing the stance of domestic production and their growth.

### Contrast with Swadeshi Movement

- The Swadeshi Movement was announced in 1905 that focussed on self-reliance and boycotting the colonial tendencies and their way of capturing the market. It meant to boycott the foreign-made cloth and promote the use of khadi and enhance the idea of self-sufficiency.
- Atma Nirbhar Bharat is also swadeshi in other words. It also aims to enhance the idea of self-sufficiency but the component of boycotting foreign things is not part of the mission of becoming Atma Nirbhar.

### Atma Nirbhar Bharat is not Anti-Globalization

- Atma Nirbhar Bharat is not anti-globalisation. It is about getting the best from the world. It is about being a global champion and not about isolation.
- It is not about protectionism. It is about enhancing the ability of Indian companies to create world-class products and capture the domestic market and then use the strength of the domestic market to penetrate into the global market.
- The objective is to become competitive, therefore, the focus is to make India simple in doing business.

### Challenges for India

- India lacks in the terms of advanced technology and is mostly dependent on technology transfer from more advanced economies.
- Development in India till now has been partisan, having regional disparity. Everyone has not been able to access the benefits arising out of it.
- Financing the amount announced in the package would be difficult given the grim condition of fiscal deficits.

### Conclusion

Several bold reforms are needed to make the country self-reliant. These include supply chain reforms for agriculture, rational tax system, simple and clear laws, capable human resources, and a strong financial system.





# TARGET MAINS

## PAPER-I

**Question 1.** Discuss some of the key challenges faced by women as highlighted in the State of the World Population 2020 report.

**Answer:** The United Nations Population Fund (UNFPA) has released the State of the World Population 2020 report which has highlighted some challenges faced by women:

- **Female Mortality:** It is the difference between observed and expected mortality of the girl child or avoidable death of girls during childhood. In Afghanistan, Bangladesh and Pakistan excess female mortality of girls below 5 years of age was under 3%.
- **Female Genital Mutilation:** It involves the partial or total removal of external female genitalia or other injuries to the female genital organs for non-medical reasons. An estimated 4.1 million girls will be subjected to female genital mutilation in 2020.
- **Gender-biased Sex Selection:** An extreme and continuing preference for sons over daughters in some countries has fuelled gender-biased sex selection or extreme neglect which leads to girls' death as children, resulting in missing females.
- **Child Marriage:** Every day, around 33,000 girls under age 18 are forced into marriage, usually to much older men. In India, child marriage is directly linked to poverty, poor education, geographic location and the rural-urban divide.
- **COVID-19 Induced Challenges:** The economic disruptions and income-loss because of the COVID-19 pandemic are likely to increase violence against girls and women due to intensified unwantedness of daughters and gender discrimination.

### Way forward

- People must foster respect for women and girls, by changing attitudes and practices that commoditize them.
- People must protect women and girls by enforcing laws against practices like child marriage and female genital mutilation and also by changing attitudes and norms.

- Governments must fulfil their obligations under human rights treaties that require the elimination of these practices and rituals.

Ignoring the other half of the population can have serious consequences. Their contribution is of utmost importance and positive policymaking along with the change in social attitude towards women can lead to a safer and more equal world.

**Question 2.** The growing population of India is a cause for concern. In light of the above statement, enumerate the implications of the rising population on society and economy of India.

**Answer:** The population explosion has major impacts on the country ranging from social to economic. In India, we can attribute population explosion to a high birth rate and a higher total fertility rate in several states.

### Impacts on society and the economy

- There will be a disturbance in per capita food availability despite an increase in production.
- Poor distribution of food resulting in hunger and deaths along with a shortage of medical facilities and services.
- There will be an increase in the numbers of jobless people and disguised employment will increase.
- Increased instances of crime.
- Access to education for all would take a dip down due to an increase in the burden of poverty and non-apparent child labour.
- Competition for resources will increase whether economic or environmental.
- Increase in industrial and community waste.
- Enhancement in air, water and land pollution.
- Increased density of population.

However, the rate of growth should not be the only measurement of overpopulation. The density of the population should also be considered. As an example, there are many countries in Africa whose growth rate is higher than India.

- **Vector-borne:** Being bitten by a tick, or an insect like a mosquito or a flea.
- **Foodborne:** Eating or drinking something unsafe, such as unpasteurized (raw) milk, undercooked meat or eggs, or raw fruits and vegetables that are contaminated with feces from an infected animal.

### Step for prevention

- Washing our hands right after being around animals, even if we didn't touch any animal, is one of the most important steps we can take to avoid getting sick and spreading germs to others.
- Prevent bites from mosquitoes, ticks, and fleas.
- Learn more about ways to handle food safely - whether it's for ourself or our family, our pet, or other animals.

The increasing interdependence between man and animals, may be for food habits or domestication increases the chances of spread of such diseases. There is a need to curb illegal trading of wild animals, pet handling and enhance the safety regulations for food.

**Question 9.** Recently, the Union Cabinet has approved the creation of the Indian National Space Promotion and Authorisation Centre (IN-SPACe). In light of the above statement, discuss the significance of the private sector in India's space sector.

**Answer:** The new Indian National Space Promotion and Authorisation Centre (IN-SPACe) will assess the needs and demands of private players, including educational and research institutions, and explore ways to accommodate these requirements in consultation with ISRO.

- IN-SPACe is supposed to be a facilitator, and also a regulator. It will act as an interface between ISRO and private parties, and assess how best to utilise India's space resources and increase space-based activities.

### Role of private sector

- The private industry will supplement ISRO to concentrate on science, research and development, interplanetary exploration and strategic launches.
- Right now, too much of ISRO's resources are consumed by routine activities that delay its strategic objectives.
- Additionally, the demand for space-based applications and services is growing even within India, and ISRO is unable to cater to this.

- The need for satellite data, imageries and space technology now cuts across sectors, from weather to agriculture to transport to urban development.
  - Private sector will bring in the new technologies and more innovative ideas.

The world over, an increasing number of private players are taking over this activity for commercial benefits. ISRO, like NASA, is essentially a scientific organisation whose main objective is exploration of space and carrying out scientific missions.

### PAPER-IV

**Question 10.** What does the following quote mean to you?

*"A good deed is never lost: He who sows courtesy reaps friendship; and he who plants kindness gathers love."*  
- Saint Basil

**Answer:** Our deeds or actions are preceded by thoughts, either conscious or subconscious. A man is known by his deeds.

Somebody has famously said that 'man is mortal'. Nobody survives for eternity. It is his/her deeds and social relations that are left behind and which reverberates for generations to come.

- To illustrate, Ashoka, the Mauryan emperor, ruled around 2100 years ago. He ruined the whole Kalinga. Later the same emperor, transformed into a practitioner of non-violence and set a benchmark in the annals of Indian history.
- Muhammad Ghor invaded India, took back the huge booty and left the land devastated, a scare that decided the course of history setting the ground of Hindu vs Muslim.
- Mahatma Gandhi, the epitome of truth and non-violence defined the mode and momentum of Indian freedom movement. His deeds became an ideal for the world to follow.
- Mother Teresa, devoted her life to the cause of downtrodden. Her love and compassion and readiness to care earned her the love and affection of mankind.

Thus, it is the deed which stays back. How we act and how we behave decides how the world treats us. The purpose of an individual's life shall be to live in a way that can make his/her ideals worth following.

# PT 2020 COMPENDIUM

## PART II

### History, Art and Culture 114

- Skandagupta 114
- Dara Shikoh 115
- Chaolung Sukapha 116
- Keeladi Excavations 117
- Bharati Script 118
- Talamaddale 119

### Geography 120

- Pacific Decadal Oscillation 120
- Atlantic Meridional Overturning Circulation 120
- GSI Report on Graphite Reserves 120

### Polity and Governance 121

- Contempt of Court 122
- What is Curative Petition? 123
- Official Language in High Courts 123
- Gram Nyayalayas 124
- Who are Chakmas and Hajongs? 126
- 23 Additional MFP Items Included in MSP List 127
- Abujh Marias 127
- Anglo - Indians in Lok Sabha and Assemblies 127
- Legislative Council 128
- STRIDE Scheme 131
- National Digital Health Blueprint (NDHB) 131
- World Bank's STARS Project 131
- Debt Recovery Tribunals 135
- Delimitation Commission 135
- UN Women 136
- GI Tags to New Products 136

### International Relations 136

- New START Treaty 136
- South-South and Triangular Cooperation 137
- Operation Sunrise 138
- Operation Sankalp 138
- Indian Ocean Commission 139
- Eastern Economic Forum 141
- Indian Ocean Conference 141
- Feni River 143
- Blue Dot Network 144

### Economy 144

- Chief Risk Officer 144
- Periodic Labour Force Survey (PLFS) 144
- Economic Census - 2019 145

- National Anti-Profiteering Authority (NAA) 146
- Ways and Means Advances 148
- Long-Term Repo Operations (LTROs) 149
- Operation Twist 150
- Special Drawing Rights (SDR) 150
- SANKALP 151
- Government e-Marketplace (GeM) 151
- Swamitva Yojana to Boost Rural Economy 151
- Advance Pricing Agreements (APAs) 153
- Sahakar Mitra Scheme 154

### Environment and Ecology 155

- Basel Convention 155
- Carbon Disclosure Project 156
- World Reconstruction Conference 156
- UNCCD COP 14 156
- Dead-Zone 157
- European Green Deal 160
- Ramsar Sites in India 161
- Muktooshi- Arsenic-Resistant Rice 162
- UN Convention on Migratory Species 163

### Science and Technology 164

- E-2020 Initiative 165
- Deep Ocean Mission 165
- Gravitational Lensing 165
- Indian Data Relay Satellite System 166
- SunRISE Mission 167
- Starlink Network Project 168
- StrandHogg 169
- Trans Fats 170
- Monkeypox Virus 170
- H9N2 171
- G4 Virus 171
- National Health Profile, 2019 171
- Biorock or Mineral Accretion Technology 172
- Polycrack Technology 172
- Quantum Entanglement 173

### Miscellaneous 174

- Angikaar Campaign 174
- Project Soli 174
- National Crisis Management Committee 174
- Microdots 175
- Winged Raider 175

## History, Art and Culture

### Ranjit Singh

Statue of Maharaja Ranjit Singh of Punjab was unveiled in Lahore, Pakistan.

#### About Ranjit Singh

- The maharaja was known for his just and secular rule; both Hindus and Muslims were given powerful positions in his darbar.
- He turned Harimandir Sahib at Amritsar into the Golden Temple by covering it with gold.
- He was given the title Lion of Punjab (Sher-e-Punjab) because he stemmed the tide of Afghan invaders in Lahore, which remained his capital until his death.

### Basavanna

Basava Jayanthi was observed on the birthday of Basavanna, a Hindu Kannada poet of the 12<sup>th</sup> century.

#### Key points

- Basavanna spread social awareness through his poetry, popularly known as Vachanaas.
- As a leader, he developed and inspired a new devotional movement named Virashaivas.
- Basava championed devotional worship that rejected temple worship and rituals led by Brahmins.

### Ishwar Chandra Vidyasagar

The giant statue of Ishwar Chandra was recently vandalized in Kolkata.

#### Key points

- His book 'Borno Porichoy' meaning 'introduction to the letter' is still used as the introductory text to learn Bengali alphabet.
- He was the pioneer in bringing an end to the practice of child marriage and initiate widow remarriage.
- The Hindu Widows' Remarriage Act, known as Act XV, was passed with his efforts.
- He was appointed as the principal of Sanskrit College.

### Dadabhai Naoroji

September 4, 2019, was the 194<sup>th</sup> birth anniversary of Dadabhai Naoroji, the "Grand Old Man of India", who was among the first leaders who stirred national consciousness in the country.

#### Key points

- He served as the first Indian member of the British parliament.
- His first agitation, in 1859, concerned recruitment to the Indian Civil Service.
- In 1865 and 1866, Naoroji helped found the London Indian Society and the East India Association. The two organisations sought to bring nationalist Indians and sympathetic Britons on one platform.
- As the secretary of the East India Association, Naoroji travelled in India to gather funds and raise national awareness.
- In 1885, Naoroji became the vice-president of the Bombay Presidency Association.
- He was Congress president thrice, in 1886, 1893, and 1906.
- Dadabhai Naoroji was among the key proponents of the 'Drain Theory', disseminating it in his 1901 book 'Poverty and Un-British Rule in India'.

### Skandagupta

The Union Home Minister Amit Shah recently inaugurated an international seminar on the role of Gupta dynasty emperor Skandagupta at Banaras Hindu University in Varanasi.

#### Key points

- The Gupta period is known as the golden period of ancient Indian history and Skandagupta Vikramaditya is known as the Saviour of India as he successfully fought the battle against the invading Huns.
- Skandagupta ascended the throne in 455 AD and ruled till 467 AD. During the 12-year rule, he not only defended the great culture of India but also from external aggression and defeated the Huns (**Bhitari pillar inscription**).
- The Junagadh rock, which contains inscriptions of the earlier rulers Ashoka and Rudradaman, has an inscription engraved on the orders of Skandagupta's governor Parnadatta.

### Veer Savarkar

Had it not been for Vinayak Damodar Savarkar, the 1857 uprising would have been viewed through the lens of the British, Union Home Minister said recently.

## Geography

### Pacific Decadal Oscillation

Northeast India has been experiencing rapid drying, especially in the last 30 years. The decreasing monsoon rainfall is associated with natural changes in the Pacific Decadal Oscillation (PDO).

#### Key points

- The “Pacific Decadal Oscillation” (PDO) is a long-lived El Niño-like pattern of Pacific climate variability. The PDO is detected as warm or cool surface waters in the Pacific Ocean, north of 20°N.
- Warm eras have seen enhanced coastal ocean biological productivity in Alaska and inhibited productivity off the west coast of the contiguous United States, while cold PDO eras have seen the opposite north-south pattern of marine ecosystem productivity.
- Both PDO and ENSO have similar spatial climate fingerprints yet the major difference is that PDO persists for 20-30 years while the typical ENSO persists for 6 to 18 months.

### Atlantic Meridional Overturning Circulation

Atlantic Meridional Overturning Circulation (AMOC) has been weakening that could have consequences for Europe and other parts of the Atlantic rim.

#### About AMOC

- The Atlantic Meridional Overturning Circulation (AMOC) is a large system of ocean currents that carry warm water from the tropics northwards into the North Atlantic.
- It aids in distributing heat and energy around the earth, as the warm water it carries releases heat into the atmosphere, and in absorbing and storing atmospheric carbon.

### GSI Report on Graphite Reserves

Geological Survey of India (GSI) has released a report on graphite reserves in India. About 35% of India’s total Graphite reserves are found in Arunachal Pradesh.

#### Key points

- As per GSI’s 2013 report, Arunachal Pradesh sits on 35% of the country’s graphite resources followed by Jammu & Kashmir, Jharkhand, Tamil Nadu, and Odisha.

- Graphite is a naturally-occurring form of crystalline carbon. It is a native element mineral found in metamorphic and igneous rocks.
- Graphite is the only non-metal element that is a good conductor of electricity.

### Pacific Ring of Fire

Mount Sinabung volcano recently erupted.

#### Key points

- It is located in Sumatra Island, western Indonesia.
- Indonesia sits along the Ring of Fire region, an area where most of the world’s volcanic eruptions occur.
- Indonesia is at the meeting point of three major continental plates – the **Pacific**, the **Eurasian** and the **Indo-Australian plates** – and the much smaller **Philippine plate**.
- The Ring of Fire is a Pacific region home to over 450 volcanoes, including three of the world’s four most active volcanoes – Mount St. Helens in the USA, Mount Fuji in Japan and Mount Pinatubo in the Philippines. It is also sometimes called the circum-Pacific belt.

### Samudrayaan Project

India to undertake deep ocean mining with ‘Samudrayaan’ project.

#### About Samudrayaan

- It is a pilot project of the Ministry of Earth Sciences for deep ocean mining for rare minerals.
- It proposes to send men into the deep sea in a submersible vehicle for ocean studies.

### What is Earth’s Seismic Noise?

Scientists at the British Geological Survey (BGS) have reported a change in the Earth’s seismic noise and vibrations amid the coronavirus lockdown.

#### Key points

- In geology, seismic noise refers to the relatively persistent vibration of the ground due to a multitude of causes.
- It is the unwanted component of signals recorded by a seismometer– the scientific instrument that records ground motions, such as those caused by earthquakes, volcanic eruptions, and explosions.

- The seismic noise vibrations caused by human activity are of high frequency (between 1-100 Hz), and travel through the Earth's surface layers.

### Ozone Hole

Largest Ozone Hole ever recorded over the North Pole has now 'Healed Itself' and closed. This was announced by Scientists who were tracking the hole at Copernicus' Atmosphere Monitoring Service (CAMS).

#### Key points

- The unique cocktail of the powerful vortex and low temperatures generates Stratospheric clouds that react with CFCs and destroy the Ozone layer in the process.
- The polar vortex is described as a whirling cone of low pressure over the poles that is strongest in the winter months due to the increased temperature contrast between the polar regions and the mid-latitudes, such as the US and Europe.

### Cyclonic Storm 'NISARGA'

Cyclonic Storm formed over the East central Arabian Sea has been named Nisarga. The name in the new list was suggested by Bangladesh.

#### Key points

- Tropical Cyclone is any large system of winds that circulates about a center of low atmospheric pressure in a counter-clockwise direction north of the Equator and in a clockwise direction to the south.
- Cyclones around the world are named by Regional Specialised Meteorological Centres and Tropical Cyclone Warning Centres. There are a total of six RSMCs and five TCWCs, including the India Meteorological Department.

- The Indian weather bureau has been mandated with the duty to name cyclones that develop over the North Indian ocean, including Arabian Sea and Bay of Bengal.

### Sun's Corona

Scientists have recently discovered tiny flashes of radio light emanating from all over the Sun, which they say could help in explaining the long-pending coronal heating problem.

#### Key points

- The data was collected with the help of the **Murchison Widefield Array** (MWA) radio telescope.
- The radio lights or signals under study result from beams of electrons accelerated in the aftermath of a magnetic explosion on the Sun.
- The Sun's corona is the outermost part of the Sun's atmosphere.
- The corona is usually hidden by the bright light of the Sun's surface.

### Zealandia

Researchers from GNS Science in New Zealand have announced that they mapped the shape and size of the Zealandia continent in unprecedented detail.

#### Key points

- Zealandia's area is nearly 2 million square miles but only 6% of the continent is above sea level. That part underpins New Zealand's north and south islands and the island of New Caledonia.
- The map is part of a global initiative to map the planet's entire ocean floor by 2030.

## Polity and Governance

### National e-Vidhan Application (NEVA) Project

The Kerala Legislative Assembly recently announced an initiative to digitize all its records and proceedings under its ambitious project called E-Vidhan.

#### e-Vidhan

- National e-Vidhan Application (NEVA) project is a Mission Mode Project under the Digital India Programme.
- Ministry of Parliamentary Affairs (MoPA) is the 'Nodal Ministry'.

- The funding for e-Vidhan is provided by the MoPA and technical support by the Ministry of Electronics and Information Technology (MietY).
- The funding of NeVA is through Central Sponsored Scheme.

### Electoral Bonds

The government has curtailed the time period for sale of electoral bonds by the SBI to only 5 days from 10 days as was announced earlier.

Pardon	Commutation	Reprieve	Remission	Respite
It completely absolves the offender from all sentences and punishment and disqualifications and places him in the same position as if he had never committed the offence.	It means exchange of one thing for another. In simple words to replace the punishment with less severe punishment. For example, for rigorous imprisonment to simple imprisonment.	It means temporary suspension of death sentence. For example, pending a proceeding for pardon or commutation.	It means the reduction of the amount of sentence without changing its character.	It means awarding a lesser punishment on some special grounds. For example, the Pregnancy of women offender

### Pradhan Mantri Laghu Vyapari Maan-dhan Yojana

The underperformance of the National Pension Scheme for Traders, Shopkeepers and Self-Employed Persons has raised the issue of the credibility of the scheme.

#### Key points

- It is a voluntary and contribution-based central sector scheme.
- The government launched the scheme, entailing a monthly minimum assured pension of ₹3,000 for the entry age group of 18-40 years after attaining the age of 60 years, with effect from July 22, 2019.
- Under the scheme, the government makes a matching contribution in the subscribers' account. The scheme is based on self-declaration as no documents are required except bank account and Aadhaar Card.

### PM Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi)

Mobile App of PM SVANidhi launched to bring Microcredit facility for street vendors at their doorsteps.

#### Key points

- Earlier the Ministry of Housing and Urban Affairs (MoHUA) has launched Pradhan Mantri Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi), for providing affordable loans to street vendors.
- The vendors can avail a working capital loan of up to ₹10,000, which is repayable in monthly instalments within a year. The loans would be without collateral.
- Small Industries Development Bank of India is the technical partner for the implementation of this scheme.

### NISHTHA

The National Initiative for School Heads and Teachers Holistic Advancement (NISHTHA) programme has been launched for the first time in online mode in the state of Andhra Pradesh.

#### Key points

- Initially, the NISHTHA programme was launched in 2019 through face-to-face mode to improve learning outcomes at the elementary level in the country.
- NISHTHA is a capacity building programme for improving the quality of school education through integrated teacher training.
- The Ministry of Human Resource and Development launched NISHTHA to build capacities of government teachers across the country.

### Pradhan Mantri Matsya Sampada Yojana (PMMSY)

The Union Cabinet has given its approval for implementation of the Pradhan Mantri Matsya Sampada Yojana (PMMSY).

#### Key points

- PMMSY is a scheme to bring about the Blue Revolution through sustainable and responsible development of the fisheries sector in India under two components namely, Central Sector Scheme (CS) and Centrally Sponsored Scheme (CSS).
- **Nodal Ministry:** Ministry of Fisheries, Animal Husbandry and Dairying.

### Back to Village Programme

The "back to village" programme has begun in Jammu and Kashmir.

#### About the programme

The programme has four main goals: energising panchayats, collecting feedback on delivery of government schemes and programmes, capturing specific economic potential and undertaking assessment of needs of villages.

### National Mission on Natural Language Translation

The Ministry of Electronics and IT is planning to launch a National Mission on Natural Language Translation.

**About NDQF**

The NDQF aims at establishing protocols and good practices when dealing with data collection, storage, use and dissemination that can be applied to health and demographic data.

**UN Women**

United Nations Secretary-General (UNSG) recently appointed Indian-origin Anita Bhatia as Deputy Executive Director of UN-Women.

**About UN Women**

- It is the UN entity dedicated to gender equality and the empowerment of women. It was established in 2010 to accelerate progress on meeting their needs worldwide.
- Its role is to support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards and norms.

**GI Tags to New Products**

GI tag has been given to Black rice of Manipur, also called the Chak-Hao, Telia Rumal, Gorakhpur Terracotta, Sohrai Khovar and Kadalai Mittai of Kovilpatti.

**Key points**

- Black rice variety has a deep black colour and is higher by weight than that of other coloured rice varieties like brown rice, etc. This is mainly due to the anthocyanin agent.
- Kovilpatti Kadalai Mittai is a peanut candy made in southern parts of Tamil Nadu. The candy is prepared from groundnut and jaggery. The water is exclusively used from the river Thamirabarani.
- Gorakhpur Terracotta: The potters of the town make animal figures like elephants, horses.
- Sohrai Khovar painting is a traditional and ritualistic mural art being practised by local tribal women during local harvest and marriage seasons using local, naturally available soils of different colours in the area of Hazaribagh district of Jharkhand. The style features a profusion of lines, dots, animal figures and plants, often representing religious iconography.
- Telia Rumal cloth of Telangana involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white.

## International Relations

**QUAD Meeting**

The 4<sup>th</sup> edition of the Quadrilateral meet among India, Japan, Australia and the United States was held at Bangkok, Thailand.

**About QUAD**

- It is a regional coalition between four countries that are Indian, Japan, Australia and the US.
- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.
- The idea was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, the idea couldn't move ahead with Australia pulling out of it.
- The Quad, as one of the elements of its larger Indo-Pacific strategy for "a free, open and rules-based order" in face of an aggressive and expansionist China in the region.

**Global Disability Summit**

The 2<sup>nd</sup> Global Disability Summit was held in Buenos Aires, Argentina.

**About the Summit**

The objectives of the summit were to deliberate on issues across the world concerning empowerment and inclusion of Persons with Disabilities (PwDs) and to work out a mechanism for enabling them to live an independent and dignified life.

**New START Treaty**

Russia has warned that it was prepared to drop the New START treaty with the U.S.

**About New START (Strategic Arms Reduction Treaty)**

- It is a nuclear arms reduction treaty between the United States and the Russian Federation with the formal name of Measures for the Further Reduction and Limitation of Strategic Offensive Arms.
- Under terms of the treaty, the number of strategic nuclear missile launchers will be reduced by half.

**Singapore Convention on Mediation**

The Cabinet has approved the signing of the United Nations Convention on International Settlement Agreements (UNISA) or Singapore Convention.



(JRC) in Dhaka, where it was agreed to collect data and prepare water-sharing agreements for seven rivers — Manu, Muhuri, Khowai, Gumti, Dharla, Dudhkumar, and Feni.

### UNSC Resolution 47

Pakistan termed the Government of India's decision of modifying Article 370 as illegal and a violation of UNSC resolution 47.

#### Resolution 47

Resolution 47 of the UNSC focuses on the complaint of the Government of India concerning the dispute over the State of Jammu and Kashmir, that India took to the Security Council in January 1948.

### One Country Two Systems

Protests in Hong Kong have brought a decades old policy One Country Two Systems of the People's Republic of China back into focus.

#### Key points

According to policy the Hong Kong and Macau Special Administrative Regions can have different economic and political systems from that of mainland China.

### Blue Dot Network

The first meeting of the Blue Dot Network's embryonic steering committee was held recently.

#### Key points

- The U.S., Australia and Japan announced the network during the November 4, 2019, Indo-Pacific Business Forum in Bangkok. The initiative aligns with the G20's Principles for Quality Infrastructure Investment, particularly on governance, environmental standards and transparency.
- It is a new U.S.- led certification plan.
- A "blue dot" will be awarded to projects the initiative endorses. The Network will not itself directly invest in projects.

## Economy

### Chief Risk Officer

The RBI has asked the non-banking financial companies (NBFCs) with assets of more than ₹5,000 crores to appoint a chief risk officer (CRO).

#### Key points

- The primary role of the risk officer will be identification, measurement and mitigation of risks.
- All credit products (retail or wholesale) shall be vetted by the CRO from the angle of inherent and control risks.
- The CRO's role in deciding credit proposals shall be limited to being an adviser.
- The CRO shall be appointed for a fixed tenure with the approval of the board.
- There shall not be any 'dual hatting' i.e. the CRO shall not be given any other responsibility.

### Services Trade Restrictiveness Index (STRI)

The Union Commerce Ministry has found problems with the current method of Services Trade Restrictiveness Index (STRI) which ranks countries based on their services trade policies, indicating the outcomes are biased and counter-intuitive.

#### Key points

- Launched in 2014 and computed by the Organisation for Economic Cooperation and Development (OECD).
- STRI indices take the value from 0 to 1, where 0 is completely open and 1 is completely closed.
- It helps to identify which policy measures restrict trade.
- It provides policymakers and negotiators with information and measurement tools to improve the domestic policy environment, negotiate international agreements and open up international trade in services.

### Periodic Labour Force Survey (PLFS)

PLFS is India's first computer-based survey which gives estimates of key employment and unemployment indicators.

#### Key points

- **Labour Force Participation Rate:** It is the percentage of people in the labour force (those who are working or seeking or available for work) in the population.
- **Worker Population Ratio** is the percentage of employed people.

## What is CRR?

The Reserve Bank of India (RBI) has exempted banks from maintaining cash reserve ratio (CRR) for loans to retail and micro, small and medium enterprises for five years, if these loans were extended between January 31 and July 31, 2020.

### Key points

- CRR is a certain minimum amount of deposit that the commercial banks have to hold as reserves with the central bank.
- Banks do not earn any interest for maintaining CRR with the RBI.
- The CRR is used by RBI to wipe out excessive liquidity from the system.

## Recapitalisation of RRBs

The Cabinet Committee on Economic Affairs has given its approval for continuation of the process of recapitalization of Regional Rural Banks (RRBs).

### Key points

- This is for those RRBs which are unable to maintain minimum Capital to Risk weighted Assets Ratio (CRAR) of 9%, as per the regulatory norms prescribed by the Reserve Bank of India.
- The CRAR, also known as the Capital Adequacy Ratio (CAR), is the ratio of a bank's capital to its risk. It is a measure of the amount of a bank's core capital expressed as a percentage of its risk-weighted asset.
- Regional Rural Banks were set up on the basis of the recommendations of the Narasimham Working Group (1975), and after the legislation of the Regional Rural Banks Act, 1976.
- The equity of a regional rural bank is held by the Central Government, concerned State Government and the Sponsor Bank in the proportion of 50:15:35.

## Financial Stability and Development Council (FSDC)

The FSDC meeting held recently was chaired by the Union Finance Minister.

About FSDC	Composition
FSDC was constituted in December, 2010 to strengthen and institutionalise the mechanism for maintaining financial stability and promoting financial sector development.	Chairman: Finance Minister Members: Governor (RBI), Secretary of DoEA, CEA, Chairman of SEBI, IRDA, PFRD, and also IBBI.

**NOTE:** Recently, the government through a gazette notification, had included the Ministry of Electronics and Information Technology (MeitY) secretary in the FSDC in view of the increased focus of the government on the digital economy.

## National Anti-Profiteering Authority (NAA)

The tenure of the National Anti-Profiteering Authority has been extended by 2 years.

### About NAA

- The NAA has been constituted under Section 171 of the Central Goods and Services Tax Act, 2017.
- It is to ensure the reduction in rate of tax or the benefit of input tax credit is passed on to the recipient by way of commensurate reduction in prices.

## Core Investment Companies (CICs)

The Reserve Bank has constituted a working group that will review the regulatory and supervisory framework for core investment companies.

### About Core Investment Companies (CICs)

- CICs are non-banking financial companies with an asset size of ₹100 crores and above which carry on the business of acquisition of shares and securities, subject to certain conditions.
- They are allowed to accept public funds and hold not less than 90% of their net assets in the form of investment in equity shares, preference shares, bonds, debentures, debt or loans in group companies.

**NOTE:** Public funds are not the same as public deposits. Public funds include public deposits, inter-corporate deposits, bank finance and all funds received whether directly or indirectly from outside sources such as funds raised by the issue of Commercial Papers, debentures, etc.

## National Financial Reporting Authority (NFRA)

NFRA has constituted a Technical Advisory Committee (TAC) under the Chairmanship of R Narayanaswamy.

### About NFRA

- NFRA was constituted in 2018 under section 132 (1) of the Companies Act, 2013.
- It is an independent regulator for enforcement of auditing standards and ensuring the quality of audits so as to enhance investor and public confidence in financial disclosures of companies.

## Environment and Ecology

### EPCA

The Environment Pollution (Prevention and Control) Authority (EPCA) has requested the Supreme Court to intervene in the “grossly inadequate” public transport infrastructure of the NCT of Delhi.

#### About EPCA

- EPCA is a Supreme Court mandated body tasked with taking various measures to tackle air pollution in the National Capital Region under Environment Protection Act, 1986.
- EPCA also enforces a Graded Response Action Plan (GRAP) in National Capital Region as per the pollution levels.

### BS- VI Norms

International Centre for Automotive Technology (ICAT) has released India’s first Type Approval Certificate (TAC) for Bharat Stage – VI (BS – VI) norms for the two-wheeler segment.

#### Key points

- Bharat Stage norms are the automotive emission norms which the automotive manufacturers have to comply to sell their vehicles in India.
- ICAT is the premier testing and certification agency authorized by the Ministry of Road Transport and Highways.
- The major difference in standards between the existing BS-IV and the new BS-VI auto fuel norms is the presence of sulphur.
- Bharat Stage Emission Standards (BSES) was introduced in the year 2000.
- They are set by the Central Pollution Control Board under the Ministry of Environment and Climate Change.
- **Objective:** To keep air pollutants emitted by the internal combustion engine of vehicles under control.
- They are based on European (EURO) emission standards.

### India Cooling Action Plan (ICAP)

The government’s launch of the India Cooling Action Plan (ICAP) is a bold response to addressing India’s future cooling needs while neutralising its impacts.

#### Key points

- India is the first country in the world to develop such a document (ICAP), which addresses cooling requirements across sectors and lists out actions which can help reduce the cooling demand.
- The goal is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society.
- The goals emerging from the suggested interventions stated in ICAP are:
  - Reduction of cooling demand across sectors by 20% to 25 % by year 2037-38.
  - Reduction of refrigerant demand by 25% to 30% by the year 2037-38.
  - Reduction of cooling energy requirements by 25% to 40% by year 2037-38.

### Trading Programme to Combat Particulate Air Pollution

Gujarat has launched India’s first trading programme to combat particulate air pollution – the emission trading scheme (ETS).

#### Key points

- It is a market-based system where the government sets a cap on emissions and allows industries to buy and sell permits to stay below the cap.
- The Gujarat programme is the first in the world to regulate particulate air pollution.

### Basel Convention

The 14<sup>th</sup> Conference of the Parties to the Basel Convention (COP-14) was held in Geneva, Switzerland.

#### Key points

- Basel Convention – Control of Transboundary Movements of Hazardous Wastes and Their Disposal was opened for signature in 1989.
- It is an international treaty designed to reduce the movements of hazardous waste between nations, and specifically to prevent the transfer of hazardous waste from developed to less developed countries (LDCs).
- It does not address the movement of radioactive waste.
- Haiti and the United States have signed the Convention but not ratified.

objecting to the funding request to develop the Sakteng Wildlife Sanctuary project in eastern Bhutan.

### Key points

- According to China, the Sakteng Wildlife Sanctuary is located in the China-Bhutan disputed areas which are on the agenda of China-Bhutan boundary talks.
- Set up in 1992, GEF is a US-based global body to finance projects in the environment sector.

### Scheme for Promotion of academic and Research Collaboration (SPARC)

Researchers from the Indian Institute of Technology Madras are collaborating with their counterparts in Germany to develop new materials for green energy solutions.

### Key points

- This project has been taken up under the Scheme for Promotion of academic and Research Collaboration or SPARC. It aims at developing alternative technologies to produce green hydrogen in anticipation of transition to a hydrogen-based economy.

- SPARC is an initiative of the Ministry of Human Resource Development.
- The scheme aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world.

### Assam Gas Leak

Natural gas flowed out of a gas well in Assam following a blowout – or a sudden, uncontrolled release of gas/oil.

### Key points

- This happened after the blowout at the Oil India Limited's (OIL) Baghjan gas well in Assam's Tinsukia district.
- It lies close to the Maguri-Motapung wetland – an Important Bird Area notified by the Bombay Natural History Society.
- The area also lies close to the Dibru-Saikhowa National Park.

## Science and Technology

### MODIS (Moderate Resolution Imaging Spectroradiometer)

NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) data shows that China and India are leading the increase in "greening efforts" across the world.

### About MODIS

- MODIS is a key instrument aboard the Terra (originally known as EOS AM-1) and Aqua (originally known as EOS PM-1) satellites.
- Terra's orbit around the Earth is timed so that it passes from north to south across the equator in the morning, while Aqua passes south to north over the equator in the afternoon.

### MANAV: Human Atlas Initiative

The Department of Biotechnology (DBT) has launched MANAV: Human Atlas Initiative, towards improving knowledge on human physiology.

### About MANAV

- It is a project funded by the Department of Biotechnology (DBT) and aims at creating a database network of all tissues in the human body.
- It is a project that involves scientific skill development for annotation, science outreach along with handling big data.
- The project can be signed up by students who are in their final year graduation and above.
- Students from the fields of biochemistry, biotechnology, microbiology, botany, zoology, bioinformatics, health sciences, systems biologists, pharmacologists and data sciences can associate with this project.

### CCMB Scientists Sequence Asiatic Lion Genome

For the first time, the entire genome of Asiatic lions has been sequenced by scientists from CSIR-Centre for Cellular and Molecular Biology, Hyderabad.

- The target for DART is an asteroid that will have a distant approach to Earth in October 2022, and then again in 2024.
- The asteroid is called Didymos – Greek for “twin” -because it is an asteroid binary system that consists of two bodies: Didymos A, about 780 metres in size, and a smaller asteroid orbiting it called Didymos B, about 160 metres in size.

### Thirty Meter Telescope (TMT)

India, a partner in the construction of one of the largest telescopes in the world, TMT, has said it wants the project to be moved out of the proposed site at Mauna Kea, a dormant volcano in Hawaii.

#### Key points

- The Thirty Meter Telescope (TMT) is an astronomical observatory with an extremely large telescope (ELT).
- It is an international project being funded by scientific organisations of Canada, China, India, Japan and USA.
- **Planned location:** Mauna Kea on the island of Hawaii in the US state of Hawaii.

### NASA’s Voyager 2 Spacecraft

NASA has managed to fix its Voyager-2 probe remotely, almost 11.5 billion miles away from its location.

#### Key points

- Voyager 2 is the only probe ever to study Neptune and Uranus during planetary flybys.
- It is the second man-made object to leave the heliosphere.
- Voyager 2 is the only spacecraft to have visited all four gas giant planets — Jupiter, Saturn, Uranus and Neptune — and discovered 16 moons, as well as phenomena like Neptune’s mysteriously transient Great Dark Spot, the cracks in Europa’s ice shell, and ring features at every planet.
- The heliosphere is a bubble around the sun created by the outward flow of the solar wind from the sun and the opposing inward flow of the interstellar wind.

### Solar Orbiter Mission

The Solar Orbiter mission was launched recently.

#### Key points

- The mission is a collaboration between ESA (the European Space Agency) and NASA.

- The spacecraft was launched from Cape Canaveral on a United Launch Alliance Atlas V rocket.
- Solar Orbiter follows the Ulysses spacecraft, another collaboration between ESA and NASA that launched in 1990.

### SunRISE Mission

NASA has selected a new mission to study how the Sun generates and releases giant space weather storms – known as solar particle storms – into planetary space.

#### Key points

- Sun Radio Interferometer Space Experiment (SunRISE) is an array of six CubeSats operating as one very large radio telescope.
- The mission design relies on six solar-powered CubeSats to simultaneously observe radio images of low frequency emission from solar activity and share them via NASA’s Deep Space Network.

### Very Large Telescope

Using the European Space Organisation’s (ESO) Very Large Telescope (VLT), astronomers have noticed the unprecedented dimming of Betelgeuse, a red supergiant star (over 20 times bigger than the Sun) in the constellation Orion.

#### Key points

- VLT is the world’s most advanced optical instrument, consisting of four Unit Telescopes.
- The telescopes can work together, to form a giant ‘interferometer’, the ESO Very Large Telescope Interferometer.
- Location: Atacama Desert, Northern Chile.
- The four separate optical telescopes are known as Antu, Kueyen, Melipal, and Yepun, which are all words for astronomical objects in the Mapuche language.

### ISRO PSLV-C47 Launched

India’s Polar Satellite Launch Vehicle, PSLV-C47 has launched Cartosat-3 and 13 commercial nanosatellites into Sun Synchronous orbit from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.

#### Key points

- This is the first commercial order to put into orbit 13 American nanosatellites for NewSpace India, which was formed only in March 2019.

- PSLV-C47 is the 21<sup>st</sup> flight of PSLV in 'XL' configuration (with 6 solid strap-on motors).
- Cartosat-3 is a third-generation agile advanced earth observation satellite with high-resolution imaging capability. Developed by the Indian Space Research Organization (ISRO), it will replace the IRS series.

### Starlink Network Project

SpaceX, the world's leading private company in space technology, has launched 60 satellites into the low earth orbit, under the Starlink network project.

#### Key points

- The Starlink network is one of several ongoing efforts to start beaming data signals from space.
- Under the project, the company intends to evolve into a constellation of nearly 12,000 satellites.
- The aim is to provide low-cost and reliable space-based Internet services to the world.

### Interplanetary Pollution

Last year, the Israeli spacecraft Beresheet attempted to land on the Moon, but crashed on the surface. It was carrying a number of items — including thousands of specimens of a living organism called **tardigrade**.

#### Key points

- The tardigrade, also known as water bear, is among the toughest and most resilient creatures on Earth. The tardigrade can only be seen under a microscope.
- The tardigrade can endure extreme hot and cold temperature levels.
- Beresheet attempted to become the first Israeli spacecraft, and the first privately-operated mission, to land on the Moon. So far, only three other nations have carried out controlled "soft" landings on the moon — the United States, the former Soviet Union and China.

### FEDOR

Russia has launched an unmanned rocket into space.

#### Key points

- It carried a life-size humanoid robot to assist astronauts on the International Space Station.
- Known as FEDOR, which stands for Final Experimental Demonstration Object Research, the Skybot F-850 is the first humanoid robot to be sent to space by Russia.

- In 2011, NASA sent up Robonaut 2, a humanoid robot and in 2013, Japan sent up a small robot called Kirobo.

### Accretion Burst Event

Astronomers have recently found that the funnelling of matter into a forming star happens at different rates over time, as per the rotating disc of gas and dust theory.

#### Key points

- Sometimes the forming star swallows up a huge amount of matter, resulting in a burst of activities in the massive star. This is called an **accretion burst event**.
- With this, the astronomers will be able to develop and test theories to explain how high-mass stars gain their mass.

### Fifth State of Matter

NASA scientists on Earth have collaborated with astronauts on the International Space Station (ISS) to corral the first ever Bose-Einstein Condensate (BEC)- the fifth state of matter- outside of Earth's gravity.

#### Key points

- There are four natural states of matter: solids, liquids, gases and plasma. The fifth state is the man-made Bose-Einstein condensate.
- A Bose-Einstein condensate is so named because its existence was posited almost a century ago by Albert Einstein and Indian mathematician Satyendra Nath Bose.
- This exotic material only exists when atoms of certain elements are cooled to temperatures near absolute zero. At that point, clusters of atoms begin functioning as a single quantum object with both wave and particle properties.
- BEC was created by scientists in 1995. Using a combination of lasers and magnets, scientists cooled a sample of rubidium to within a few degrees of absolute zero.

### OTT (Over-The-Top) Streaming

Majority producers in the film industry are preferring online release for their movies amid COVID-19 outbreak.

#### Key points

- An "over-the-top" media service is any online content provider that offers streaming media as a standalone product. The term is commonly applied to video-on-

**Key points**

- The theoretical idea is based on applying the fine-grained uncertainty relation to perform quantum steering.
- The experiment uses an all-optical set-up in which entangled pairs of photons are created by laser light

on Beta Barium Borate (BBO) crystals, a nonlinear optical crystal, used as laser crystal.

- Quantum entanglement is a quantum mechanical phenomenon in which the quantum states of two or more objects have to be described with reference to each other, even though the individual objects may be spatially separated.

## Miscellaneous

**UTKARSH 2022**

It is a three-year road map for medium-term objectives to be achieved for improving regulation, supervision of RBI.

**Operation Sudarshan**

Border Security Force (BSF) has launched a massive exercise, as Operation Sudarshan, to fortify the Anti-Infiltration Grid along the Pakistan border in Punjab and Jammu.

**Angikaar Campaign**

Angikaar has been launched for beneficiaries of completed houses under PMAY (U), through community mobilisation and IEC activities.

**Kosi-Mechi Interlinking Project**

The project for interlinking of Kosi and Mechi rivers of Bihar.

**Meghdoot**

An application to assist farmers in temperature, rainfall, humidity, and wind speed and direction, which play critical roles in agricultural operations

**Country's Longest Electrified Rail Tunnel**

- India's longest electrified rail tunnel was recently inaugurated in Andhra Pradesh.
- Length of tunnel is 6.6 km and connects Cherlopalli and Rapuru.

**Project Replan (Reducing Plastic in Nature)**

- Launched by Khadi and Village Industries Commission (KVIC).
- It aims to make carry bags by mixing processed and treated plastic waste with cotton fibre rags in the ratio 20:80.

**'Mo Sarkar' Initiative**

- Odisha has launched a new governance initiative - 'Mo Sarkar'.
- The objective of the initiative is to provide service with dignity to people who are coming to government offices for different purposes.

**Project Soli**

- Google's Soli is a purpose-built chip to track your motion on a microscopic scale.
- It uses miniature radar for real-time motion tracking of the human hand; it's able to track sub-millimetre motion at high speeds with great accuracy.

**National Crisis Management Committee**

- For effective implementation of relief measures in the wake of natural calamities, the Government of India has set up a National Crisis Management Committee.
- Cabinet Secretary is its Chairman.

**India's Highest Altitude All-Weather Bridge**

- Col Chewang Rinchen Setu is India's highest altitude all-weather permanent bridge.
- Located in eastern Ladakh at nearly 45 km from the country's border with China.

**Nadu-Nedu Programme**

- 'Nadu-Nedu' programme has been launched in Andhra Pradesh.
- The programme seeks to transform government schools into vibrant and competitive institutions.

**What is the Danakil Depression?**

- The Danakil Depression in northeastern Ethiopia is one of the world's hottest places, as well as one of its lowest, at 100 metres below sea level.

- Coral Triangle is considered as one of the 3 mega ecological complexes on Earth, together with Congo Basin and the Amazon Rainforest.
- The region contains 76% of all known coral species, 37% of all known coral reef fish species and 53% of the world's coral reefs.

Recent Indices and Reports in News	
Index/Report	Released by
SDG Gender Index	African Women's Development and Communication Network, Asian-Pacific Resource and Research Centre for Women, Bill and Melinda Gates Foundation
World Population Prospects	Population Division of the UN Department of Economic and Social Affairs
Healthy States, Progressive India	NITI Aayog
Defending in Numbers	Asian Forum for Human Rights and Development (FORUM ASIA)
Global Peace Index	Institute for Economics & Peace
Fiscal Performance Index (FPI)	Confederation of Indian Industry (CII)
Renewable Power Generation Costs in 2018	International Renewable Energy Agency (IRENA)
State of India's Environment 2019	Centre for Science and Environment (CSE)
Emission Gap Report	United Nations Environment Programme (UNEP)
State of the World Population	United Nations Population Fund (UNFPA)
State of the Education Report for India: Children with Disabilities	UNESCO
Food and Nutrition Security Analysis, India, 2019	India and the United Nations World Food Programme
Global MPI 2019 Report	United Nations Development Programme (UNDP)
Global Innovation Index	World Intellectual Property Organisation (WIPO) in association with Cornell University and graduate business school INSEAD
Rule of Law index	World Justice Project
Broadband Readiness Index (BRI)	DoT and Indian Council for Research on International Economic Relations (ICRIER)
Henley Passport Index 2019	International Air Transport Authority (IATA)
Global Study on Homicide 2019	UN Office on Drugs and Crime (UNODC)
Child Well-being Index	World Vision India and Research institute IFMR LEAD
Time to Care Report	Oxfam International
Global Talent Competitive Index	INSEAD business school in partnership with Adecco Group and Google.
Global Forest Resources Assessment 2020	United Nations Food and Agriculture Organization (FAO)
Time Release Study	World Customs Organization (WCO)
State Rooftop Solar Attractiveness Index (SARAL)	Ministry of New and Renewable Energy (MNRE), Shakti Sustainable Energy Foundation (SSEF), Associated Chambers of Commerce and Industry of India (ASSOCHAM) and Ernst & Young (EY).
Global Social Mobility Report	World Economic Forum
Democracy Index 2019	The Economist Intelligence Unit
Composite Water Management Index (CWMI)	NITI Aayog





Think IAS. Think Drishti.

# IAS PRELIMS TEST SERIES 2021

Starting: 18<sup>th</sup> Oct, 2020

30 Full Syllabus Tests

5 GS

20 Sectional

5 CSAT

First Test Free  
for All Aspirants

**Date**  
18<sup>th</sup> October, 2020

Online Only

English and Hindi

Call: 011 47532596, 87501 87501



**To match with the evolving world of education,  
Drishti IAS has launched its Android Application**

## **Drishti Learning App**



- All classes provided by Drishti available on a single platform.
- Classes available in Online, Pendrive as well as Tablet mode.
- Prelims and Mains Test Series.
- Option to preview and purchase Books, Magazines and Study Materials like the Distance Learning Program
- Daily News, Editorial, Quiz and many more sections accessible for free
- Well-classified Videos from our YouTube channels
- Free Practice Questions based on NCERT/IGNOU/NIOS study material
- And much more...



**Download from Google  
Play Store today -  
Drishti Learning App**

