
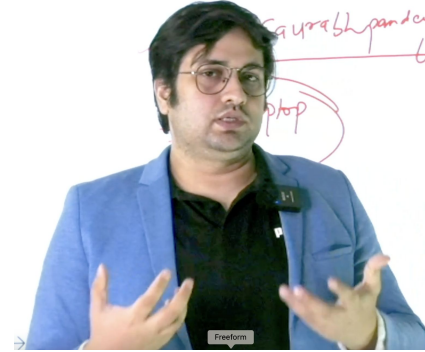


Topics - MINDS MAPS included



- PM KUSUM YOJANA
- The Namdapha National Park
- -National Pest Surveillance System (NPSS)
- All About Wolbachia Bacteria 
- wMelPop Strain
- IR IN NEWS
- Palau
- Mains



By saurabh Pandey



Target Mains -2024/25 -

Q .”Pacific islands are vulnerable to climate change and world order polarisation” Discuss

**Connect with sir
9057921649**

**send your answer - Saurabh pandey
upsc telegram channel**



Google Play

Games

Apps

Movies

Books

Kids



Saurabh Pandey CSE

Saurabh Pandey CSE

4.8★

77 reviews

1K+

Downloads

3+

Rated for 3+

Install



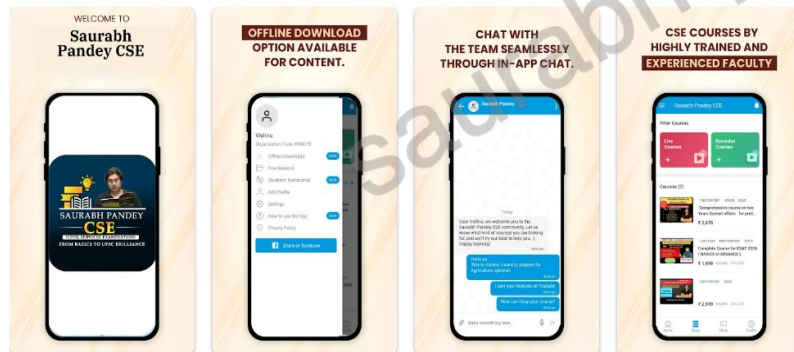
Share



Add to wishlist



This app is available for your device



App support

GS PAPER 1

Connect with sir 90579 21649

Mains special

starting
10th Sep
2024

**Complete course on
Society,
globalisation,
Regionalism,
communalism
(FOR UPSC 2025/26)**



BY SAURABH
PANDEY SIR

Master Essay Writing

Connect with sir 90579 21649

ESSAY

- Total 50 ESSAY
- Model essay
- VIDEO lectures
- Evaluation of Essay

Starting 5th
September
2024



BY SAURABH
PANDEY SIR

TARGET 140+

GS PAPER 3

Connect with sir 90579 21649

Mains special

starting
10th Sep
2024

**Complete course on
Cybersecurity,
Disaster
Management and
Border management
(FOR UPSC 2025/26)**



BY SAURABH
PANDEY SIR

**Extended
for today**

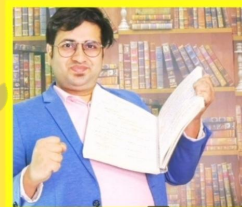
**Last
opportunity**

**ultimate
course on
essay
launched**

**INDEPENDENCE DAY
OFFER**

Till 11:59 pm

**50 PER OFF
IN ALL
COURSES**



COURSES

- ESSAY
- Society , Globalisation
- Cyber security and disaster management
- current affairs
- Agriculture optional
- Books series

Download
saurabh
pandey cse
app

Connect with sir
9057921649 (plz msg)

For course joining

Link given in description box of video

Or

Download saurabh pandey cse app

Or visit saurabhpandeyupsc.com and click on all courses

**Connect with sir
9057921649**

Topic- PM KUSUM YOJANA



Overview

Objective: Promote solar energy in agriculture 🌱

Target: Farmers and agricultural sector 🌾

Components:

Solar pumps for irrigation ☀️

Grid-connected solar power projects ⚡

Off-grid solar water pumping systems 🚰

The PM KUSUM Yojana aims to enhance the use of solar energy in agriculture, supporting farmers with financial and technical assistance.

Key Benefits

Increased efficiency: Enhanced water management 💧

Cost reduction: Lower energy costs for farmers 💰

Sustainability: Promotes renewable energy sources 🌍

Implementation



Phases:

Phase I: Installation of solar pumps

Phase II: Grid-connected solar projects

Phase III: Off-grid solar water pump systems

Financial Support:

Subsidies for solar pump installation 💰

Assistance for project development 🔧

Technological Advancements: Innovations in solar energy solutions 💡

Challenges

Awareness: Need for better outreach to farmers 

Utilization: Underutilization of existing resources 

Recent Developments

Scalability: Government efforts to expand the program 

Project Allocations:

Gautam Solar supplying panels for the scheme 

Various companies winning contracts for solar projects 

Partnerships

Collaboration with state electricity boards and private sectors 🤝

Future Prospects

Growth Potential: Increase in solar installations in agriculture 🌿

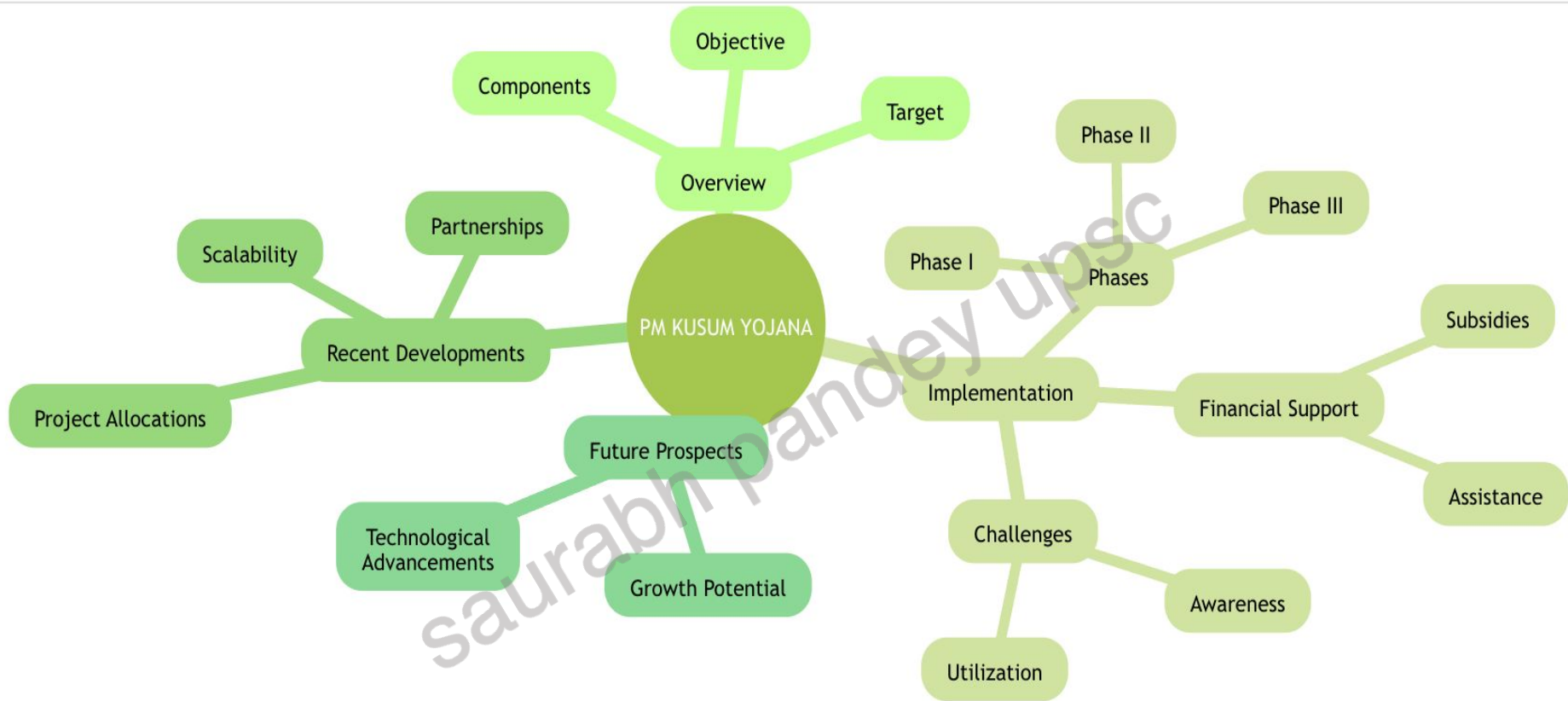


Fig 1.2: Table

- **The Pradhan Mantri-Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) envisages setting up 100 GW of solar power plants in farmer-owned land, installing 14 lakh solar pumps, and solarising 35 lakh grid connected agricultural pump**
- **A key hurdle is the unavailability of suitable land.**
- **Solar power in India has grown on the back of utility-scale power projects in Gujarat and Rajasthan where vast tracts of deserts and uncultivable land are suitable for setting up power plants.**
- **With agricultural land, it is often a challenge to Find enough parcels of land that can be pooled together and made available to a power project developer,**

Topic- The Namdapha National Park



- The Namdapha National Park and Tiger Reserve, located in the northeastern state of Arunachal Pradesh in India, is a significant protected area known for its rich biodiversity and as a critical habitat for the Bengal tiger.
- Established in 1974, the park covers an area of approximately 2,000 square kilometers and is situated in the eastern Himalayas, bordering Myanmar.
- Namdapha is notable for its diverse ecosystems, which include tropical rainforests, sub-tropical forests, temperate broadleaf forests, coniferous forests, and alpine meadows.
- This diversity supports a wide array of flora and fauna, making it one of the richest biodiversity hotspots in the country.
- The park is home to numerous species of mammals, birds, reptiles, amphibians, and plants, many of which are endemic or threatened.

- The Bengal tiger is a key species in the reserve, and conservation efforts are focused on protecting this apex predator and its habitat.
- The park also supports other large mammals such as the Indian elephant, gaur, and several species of deer, as well as a variety of smaller mammals and birds.
- Namdapha National Park is also recognized for its importance in preserving tribal cultures and traditional practices of the local communities, who have

What are the top 10 largest National Parks in India?



State/UT	National Park	Year of Establishment	Area (km ²)
1. Ladakh	Hemis NP	1981	3,350.00
2. Rajasthan	Desert NP	1992	3,162.00
3. Uttarakhand	Gangotri NP	1989	2,390.02
4. Arunachal Pradesh	Namdapha NP	1983	1,807.82
5. Sikkim	Khangchendzonga NP	1977	1,784.00
6. Chhattisgarh	Guru Ghasidas (Sanjay) NP	1981	1,440.71
7. West Bengal	Sunderban NP	1984	1,330.10
8. Chhattisgarh	Indravati (Kutru) NP	1982	1,258.37
9. Andhra Pradesh	Papikonda NP	2008	1,012.86
10. Madhya Pradesh	Kanha NP	1955	940.00

Map not to Scale

Copyright © 2020 www.mapsofindia.com



Topic-National Pest Surveillance System (NPSS)

- **The Union government launched the National Pest Surveillance System (NPSS) powered by artificial intelligence (AI) to help farmers to connect with agriculture scientists and experts by mobile phones for controlling pests.**
- **The NPSS will analyse latest data using AI tools to help farmers and experts in pest control and management.**

- **This system will help in identifying pests and controlling them. The benefit of this technology must go to farmers**
- **This system can help cure diseases at the proper time using technology. It will help in accurate diagnosis and accurate treatment.**
- **This will build confidence among farmers and production will also increase.**
- **This can save the soil too. It is a technological platform and needs no additional funding,**

Topic- All About Wolbachia Bacteria



Overview

Wolbachia is a genus of bacteria that infects a wide variety of arthropods, including insects and nematodes.

It is known for its role in influencing the reproductive processes of its hosts.

Key Aspects of Wolbachia Bacteria

Infection Types:

Diversity: Various strains infect different species.

Supergroups: Classified into different groups (A, B, etc.).

Effects on Hosts:

Male Sterility: Causes reproductive issues in male hosts.

Asexual Reproduction: Induces asexual reproduction in some insects.

Enhanced Fertility: Can increase fertility in certain insect hosts.



Applications in Disease Control:

Dengue Control: Utilized in genetically modified mosquitoes to combat dengue fever.

Zika Virus: Research shows potential in fighting Zika virus through mosquito modification.

Research Studies:

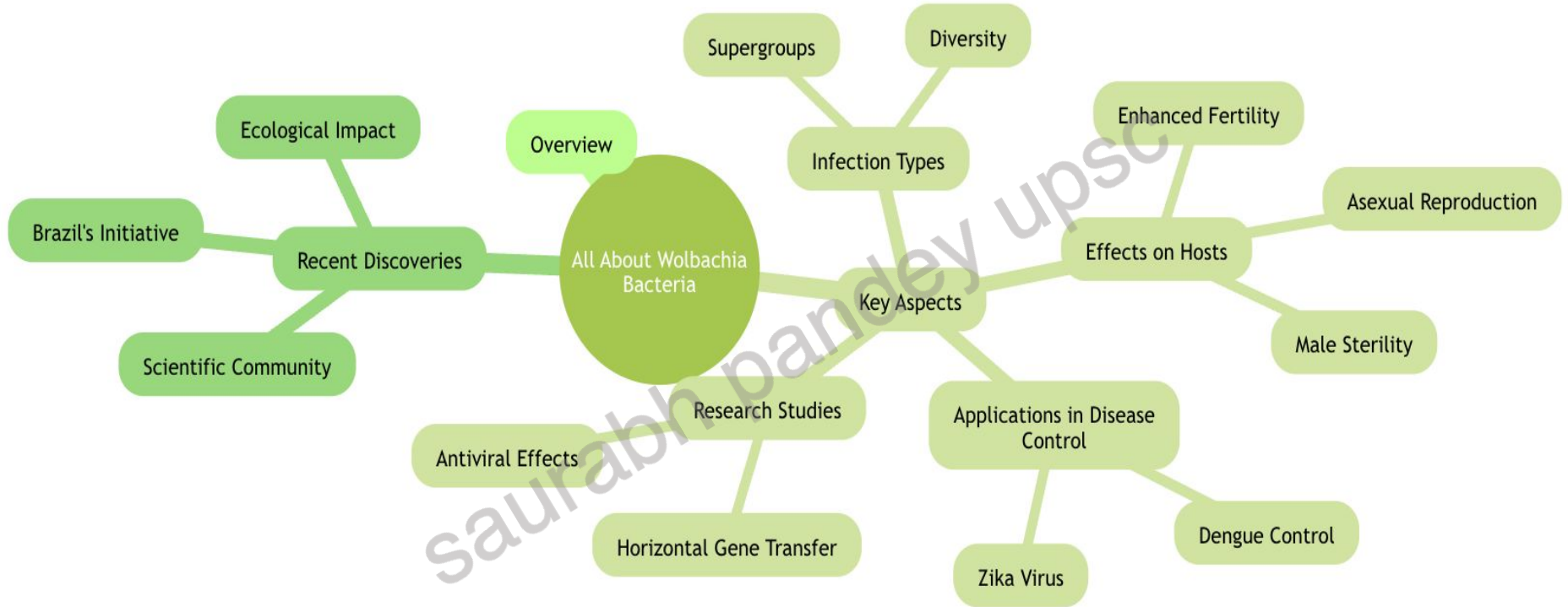
Antiviral Effects: Studies examining how Wolbachia might protect insects from viruses.

Horizontal Gene Transfer: Investigates the transfer of Wolbachia between different species.

Recent Discoveries and News

- ***Brazil's Initiative:*** Using Wolbachia-infected mosquitoes to combat dengue outbreaks.
- ***Ecological Impact:*** Exploring the role of Wolbachia in mosquito populations and its effects on ecosystems.
- ***Scientific Community:*** Ongoing research to understand its full potential in controlling diseases.

Figure 1.1: minamap



One of the most significant impacts of Wolbachia is its ability to spread through populations of its hosts by manipulating their reproduction in various ways:

- **Cytoplasmic Incompatibility (CI):** This is the most common effect of Wolbachia infection. It results in the inability of uninfected females to produce viable offspring when mated with Wolbachia-infected males. However, Wolbachia-infected females can reproduce with both infected and uninfected males, giving them a reproductive advantage. This leads to the rapid spread of Wolbachia through insect populations.
-
- **Feminization:** In some species, Wolbachia can convert genetically male embryos into phenotypic females, leading to a population with a high proportion of females, which can be beneficial for the spread of Wolbachia.



Parthenogenesis Induction: Certain Wolbachia strains can induce parthenogenesis (reproduction without fertilization) in their hosts, allowing infected females to reproduce asexually, which can lead to uninfected males becoming rare in the population.

Male Killing: In some cases, Wolbachia can cause the death of male hosts during embryonic development, resulting in a population with a high proportion of females.

For example, Wolbachia-infected *Aedes aegypti* mosquitoes have been released in some areas to reduce the transmission of dengue fever and other diseases, as Wolbachia can interfere with the ability of these mosquitoes to transmit viruses.

Topic- Overview of wMelPop Strain



Definition: A strain of *Wolbachia* bacteria

Primary Hosts: Mosquitoes, particularly *Aedes aegypti*

Significance: Used for controlling mosquito-borne diseases like dengue and Zika

Mechanisms of Action

Cytoplasmic Incompatibility:

Affects reproduction between infected and uninfected mosquitoes

Virus Inhibition:

Reduces transmission rates of viruses (e.g., dengue, Zika)

Parasite Reduction:

Lowers parasite levels in mosquitoes

Applications

Disease Control:

Integrated pest management strategies

Release of wMelPop-infected mosquitoes to reduce disease transmission



IR IN NEWS

- **Japanese Prime Minister Fumio Kishida said on August 14 he would step down as leader of the ruling Liberal Democratic Party (LDP) next month, bringing his premiership to an early end. Since coming to office in October 2021, Kishida has struggled to overcome dire approval ratings.**
- **The party has been dogged by revelations of ties to the Korean-based Unification Church in the wake of the assassination of former Prime Minister Shinzo Abe in July 2022, as well as a political fundraising scandal**



IR IN NEWS (Palau)

The President of Palau has accused China of “weaponising tourism” in a bid to get his Pacific nation to break ties with Taiwan.

Palau is one of just 12 states worldwide that diplomatically recognise self-ruled Taiwan, which China considers part of its territory.

Solomon Islands, Kiribati and Nauru have all switched allegiance from Taiwan to China in recent years, and Palau President Surangel Whipps said China had put pressure on his tiny Pacific archipelago of 18,000 people to follow suit





- **Palau, officially known as the Republic of Palau, is an island nation located in the western Pacific Ocean.**
- **It is part of the larger island group known as Micronesia. Palau consists of approximately 340 islands, with a total land area of around 459 square kilometers. The country's capital is Ngerulmud, and its largest city is Koror.**
- **Palau gained its independence from the United States in 1994, making it one of the youngest nations in the world. Before that, it was administered by the United Nations as a Trust Territory of the Pacific Islands, with the U.S. as the administering authority.**
- **The country is known for its rich marine biodiversity and stunning landscapes, including its famous Rock Islands Southern Lagoon, which was designated a UNESCO World Heritage Site in 2012. Palau's clear waters, coral reefs, and marine life make it a popular destination for scuba diving and snorkeling.**

- **Palau has a population of around 21,000 people, with the majority being native Palauans.**
- **The official languages are Palauan and English.**
- **The country has a presidential system of government and is a member of various international organizations, including the United Nations.**
- **Due to its small size and remote location, Palau faces various challenges, including economic development, environmental preservation, and adapting to the impacts of climate change, particularly rising sea levels.**

GS PAPER 1

Connect with sir 90579 21649

Mains special

starting
10th Sep
2024

**Complete course on
Society,
globalisation,
Regionalism,
communalism
(FOR UPSC 2025/26)**



BY SAURABH
PANDEY SIR

Master Essay Writing

Connect with sir 90579 21649

ESSAY

- Total 50 ESSAY
- Model essay
- VIDEO lectures
- Evaluation of Essay

Starting 5th
September
2024



BY SAURABH
PANDEY SIR

TARGET 140+

GS PAPER 3

Connect with sir 90579 21649

Mains special

starting
10th Sep
2024

**Complete course on
Cybersecurity,
Disaster
Management and
Border management
(FOR UPSC 2025/26)**



BY SAURABH
PANDEY SIR

**Extended
for today**

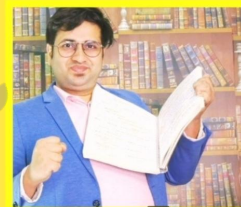
**Last
opportunity**

**ultimate
course on
essay
launched**

**INDEPENDENCE DAY
OFFER**

Till 11:59 pm

**50 PER OFF
IN ALL
COURSES**



COURSES

- ESSAY
- Society , Globalisation
- Cyber security and disaster management
- current affairs
- Agriculture optional
- Books series

Download
saurabh
pandey cse
app

Connect with sir
9057921649 (plz msg)

ATTENTION!! BATCH FOR 2025/26
LAUNCHED
connect with sir -9057921649

**CURRENT AFFAIRS PLUS
(FOR UPSC 2025)**

INCLUDES

- PIB Analysis with pdf
- Down to earth
- physics.org
- science daily
- Major newspapers
- With practice test and Mains Mock

2 yrs coverage

BY SAURABH PANDEY SIR

NEW BATCH LAUNCHED
Connect with sir 90579 21649

**Complete Agriculture
optional**

Paper 1 and Paper 2

Starting 1st July

Score 300+

MAINS MENTORSHIP
Connect with sir - 9057921649

MAINS GURUJI Connect with sir 90579 21649

**UPSC MAINS
MENTORSHIP
PROGRAM**

Batch-1

BY SAURABH PANDEY SIR

LINK IN DESCRIPTION

For course joining

Link given in description box of video

Or

Download saurabh pandey cse app

Or visit saurabhpandeyupsc.com and click on all courses

**Connect with sir
9057921649**

The hindu session pdf

Download the hindu session pdf

Telegram link in description box

Download the hindu pdf - <https://t.me/gesreporter>

Connect with sir
9057921649



Target Mains -2024/25 -

Q .”Pacific islands are vulnerable to climate change and world order polarisation” Discuss

**Connect with sir
9057921649**

**send your answer - Saurabh pandey
upsc telegram channel**

saurabh pandey upsc

