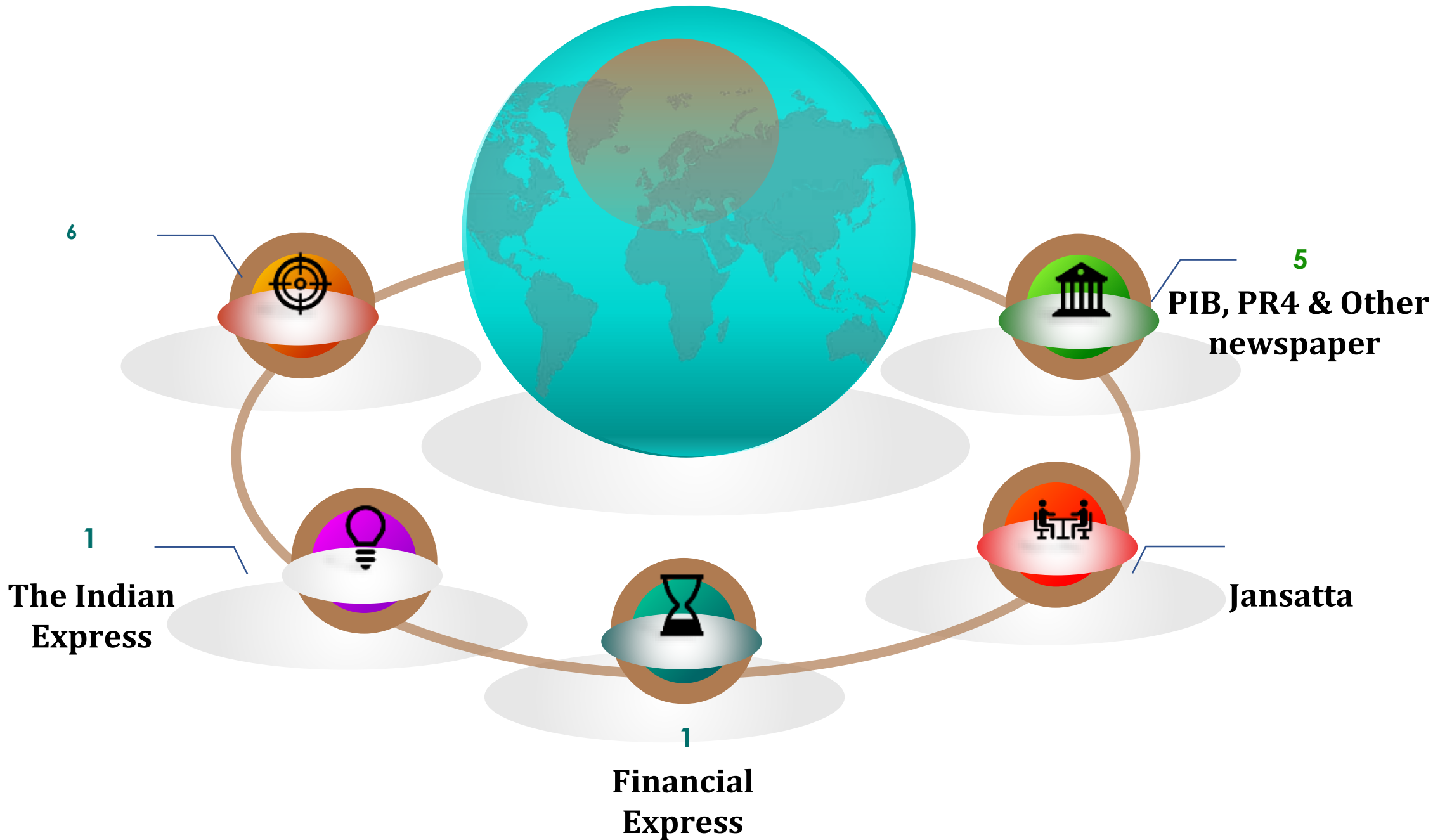


THE REAL STARS





RAILWAY COURSES

ALL CATEGORIES

ALP

COMPLETE SCIENCE SPECIAL RRB ALP & TECHNICIAN
For RRB ALP 2023
JOIN NOW
WWW.CLASS24.STUDY

GENERAL SCIENCE & BASIC SCIENCE & ENGG. RAILWAY EXAM

Features

- ✓ complete engineering Drawing
- ✓ complete general science
- ✓ MCQ's for each topics
- ✓ practice (theoretical & numerical)
- ✓ printable complete notes (pdf's)
- ✓ ncert exemplar
- ✓ 150+ hours video course

40% OFF
USE CODE: R40

RRB ALP/TECHNICIAN
FOR ALL ITI TRADE EXAM
COMPLETE TRADE THEORY ECLECTRICIAN

एग्जाम बैच

- ELECTRICIAN FIELD
- NUMERICAL SESSION
- PYQS
- HINDI+ ENGLISH NOTES
- RECORDED CLASSES
- REVISION / MODULE
- PRACTISE SESSION

₹999/- ₹799/-
USE CODE TRADE

RRB ALP/Technician
For All ITI Trade Exam
रफ्तार Batch

Complete Trade Theory Mechanical/Automobile

- Fitter/Welder/Tuner
- Diesel/Heat Engine/trac
- Tractor Mechanic
- Numerical Session
- PYQs
- Hindi+English Notes
- Regular Live Classes

Shubham Sir
Extra Discount for Shubham Sir Batch Students
USE CODE TRADE
Course Fee: ₹999/- ₹799/-

RAILWAY COMPLETE BATCH

Features

- ✓ General Science by Shipra Ma'am
- ✓ Basic Science and Engg by Shubham Sir
- ✓ Maths by Umesh Sir
- ✓ Reasoning by Shubham Sir
- ✓ Theory of each and every chapter in detail
- ✓ Printable Notes
- ✓ MCQs
- ✓ 100 Free Test

60% OFF
USE CODE: D60

BASIC SCIENCE AND ENGINEERING COURSE (ALP / TECH) 2024
HINDI & ENGLISH CONTENT DOUBT SESSIONS

1. THEORY + PRACTISE PDF
2. NUMERICALS
3. ALL PHYSICS TOPIC
4. ENGG.TOPICS
5. SAFETY PRECAUTIONS
- 6 LITERACY & ENVIRONMENT
7. 350 QUESTIONS BOOKLET

30% OFF
USE CODE RRR30

RAILWAY GENERAL SCIENCE FOUNDATION BATCH 2024

- Physics
- Chemistry
- Biology
- Previous Year Questions
- Numericals
- Top Expected Questions

Company


Help & support

Exams

Popular Courses

Start your learning

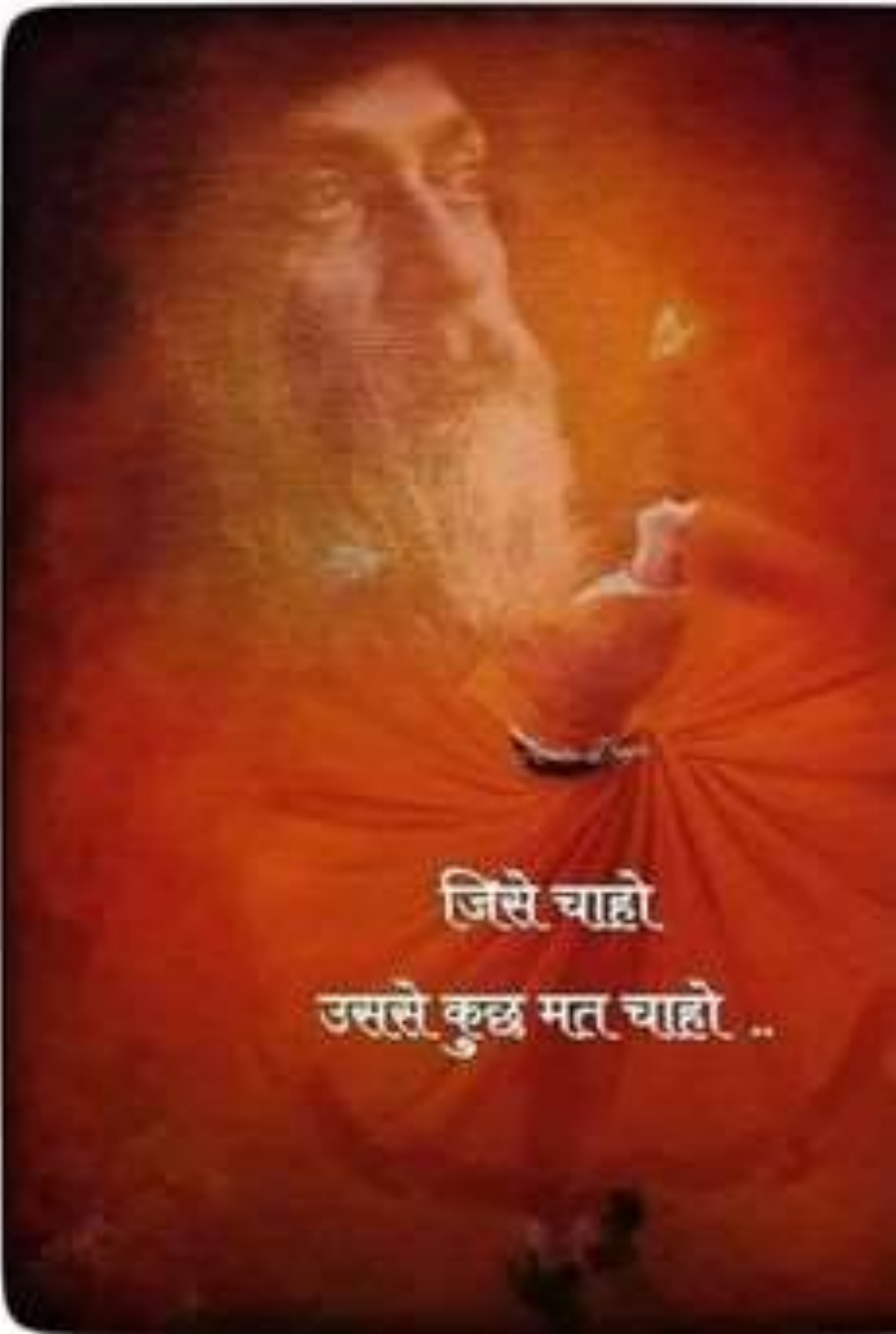
 Class24

 Chat With Us

Class24 App download

Class pdf

**10 Questions
test related to
this class**



जिसे चाहो
उससे कुछ मत चाहो ..

Autopsy on minor victim conducted

Israel marks a year of attack as war rages on two fronts

September auto retail sales decline 9%

Unpacking the Centre's affidavit on marital rape

Dips says retirement not an easy decision

Medicine Nobel 2024: Victor Ambros and Gary Ruvkun get the call for discovery of microRNA

The finding revealed something about how genes are regulated...

Parties prepare for the results of Assembly polls in J&K, Haryana

BJP rejects exit poll results in Haryana, says Congress would blame PM for its losses...

Explosion at mine



Miners' families in a state of shock after an explosion at a coal mine in Punjab, India.

CBI files chargesheet in R.G. Kar rape and murder case

The Central Bureau of Investigation (CBI) has filed a chargesheet in the rape and murder of a doctor at R.G. Kar Medical College and Hospital...

INSIDE

DGCA bans some B-75Ts on routes with low visibility

India signs \$750-mn currency swap deal with forex-starved Maldives

India signed a major currency swap agreement with the Maldives for \$750 million to help the island nation cope with its current foreign currency crunch...

Ukraine attacks oil terminal in occupied Crimea

Ukraine attacks oil terminal in occupied Crimea

Medicine Nobel 2024:

Victor Ambros and Gary Ruvkun get the call for discovery of microRNA

The finding revealed what biologists believed they knew about gene regulation to be incomplete

Victor Ambros and Gary Ruvkun have been jointly awarded the Nobel Prize for Physiology or Medicine for 2024, the Nobel Academy at the Karolinska Institutet announced on Monday

They were awarded the prestigious prize for the discovery of microRNA and its role in post-transcriptional gene regulation

"Victor Ambros and Gary Ruvkun were interested in how different cell types develop. They discovered microRNA, a new class of tiny RNA molecules that play a crucial role in gene regulation," the Nobel Assembly said in a statement

Ambros and Ruvkun's work revealed a then previously unknown principle of gene regulation that turned out to be essential for multicellular organisms, including humans

The duo made their finding by studying the 1-mm-long

roundworm *Caenorhabditis elegans*

The body makes proteins in a complex process with two broad steps: transcription and translation

During transcription, a cell copies a DNA sequence into messenger RNA (mRNA) in the nucleus. The mRNA moves from the nucleus, through the cell fluid, and attaches itself to the ribosome

During translation, another type of RNA called transfer RNA (tRNA) 'brings' amino acids to the ribosome, where they are linked together in the order specified by the mRNA to make a protein



GARY RUVKUN



VICTOR AMBROS

MicroRNA, or miRNA, regulates the production of proteins by bonding with and subsequently silencing the mRNA at an appropriate juncture.

The process is called post-transcriptional gene regulation

Ambros and Ruvkun found the first miRNA gene in *C. elegans* in 1993. It was called lin-4. They confirmed its role by modifying the miRNA to result in different parts of the worm's developmental process to be thrown out of sync

By studying a second miRNA gene they found seven years later, called let-7, they confirmed miRNAs are actually present across the animal kingdom

"MiRNAs are proving to be fundamentally important for how organisms develop and function," the Assembly added in its statement

[MORE ON WORLD PAGE](#)

Alfred Nobel



Nobel in 1896

Born	Alfred Bernhard Nobel 21 October 1833 Stockholm, Sweden
Died	10 December 1896 (aged 63) Sanremo, Liguria, Kingdom of Italy
Resting place	Norra begravningsplatsen 59°21'24.52"N 18°1'9.43"E
Monuments	Nobel Monument
Occupations	Chemist · engineer · inventor · businessman
Known for	Establishing the Nobel Prizes Inventing dynamite
Parents	Immanuel Nobel Andriette Nobel
Family	Nobel

Signature

115 Nobel Prizes in Physiology or Medicine have been awarded to 229 laureates, 216 men and 13 women.

The first one was awarded in 1901 to the German physiologist, Emil von Behring, for his work on serum therapy and the development of a vaccine against diphtheria.

The first woman to receive the Nobel Prize in Physiology or Medicine, Gerty Cori, received it in 1947 for her role in elucidating the metabolism of glucose, important in many aspects of medicine, including treatment of diabetes.

India signs \$750-mn currency swap deal with forex-starved Maldives

Suhasini Haidar
NEW DELHI

India signed a major currency swap agreement with the Maldives for \$750 million to help the island nation tide over its current foreign currency crunch, after Prime Minister Narendra Modi met with Maldivian President Mohamed Muizzu in New Delhi on Monday. The swap arrangement for \$400 million and an additional ₹3,000 crore (\$357 million), signed between the Reserve Bank of India and the Maldives Monetary Authority under the South Asian Association for Regional Cooperation (SAARC) Currency Swap Framework, will be available until 2027.

Among the agreements signed on Monday are for the launch of the RuPay card in the Maldives and

handover of 700 houses built with assistance by India. Memorandums of understanding were inked between the Central Bureau of Investigation and the Anti-Corruption Commission of the Maldives and between policing institutes and judicial training institutes; and also for cooperation in sports and youth affairs.

Welcomes tourists

Speaking of people-to-people ties, which were hit by a “boycott Maldives” social media campaign in India in response to criticism of Mr. Modi in the Maldives, Mr. Muizzu said he hoped Indian tourists, whose numbers have halved this year, would return.

“India is one of our largest tourism source markets and we hope to welcome more Indian tourists

to the Maldives, allowing for shared growth and understanding between our peoples,” Mr. Muizzu said in a joint press event after the talks.

India also agreed to step up cooperation on trade in national currencies, and to work on a Free Trade Agreement, as Foreign Secretary Vikram Misri said that other requests made by the Maldives, understood to include debt repayment waivers, further credit lines, and economic assistance, would be “studied” and decided on in the “coming weeks and months”.

The two countries released a “vision statement” for a “comprehensive economic and maritime security partnership” to be negotiated in the future; inaugurated a jointly constructed runway for an in-



Boosting ties: Mohamed Muizzu with Narendra Modi in his first bilateral trip to India, in Delhi on Monday. SUSHIL KUMAR VERMA

ternational airport at Hanimadhoo island; and signed an agreement for India to support the Maldives on the refit of a Coast Guard ship.

There was no mention of the return of Indian military personnel to the archipelago, however, a subject that had led to considerable tension bet-

ween New Delhi and Male, until India agreed to withdraw them and replace them with technical personnel in May 2023. When asked, Mr. Misri said the issue had been “resolved satisfactorily” and did not require revisiting.

He clarified that the refit of the Maldivian Coast Guard ship *Huravee* would

be carried out at an Indian facility. This will not require Indian personnel to travel to the Maldives.

‘Neighbourly duties’

“India has always been a First Responder for the Maldives,” Mr. Modi said in a press statement after the talks. “India has always fulfilled its duties as a neighbour,” he added, referring to the supply of essential commodities, drinking water during a crisis, and vaccines during the COVID-19 pandemic.

Addressing the media later, Mr. Misri said that India had played a “historic” role in the Maldives, including thwarting a coup there in 1988, and sending emergency assistance after the tsunami in 2004. He referred to India’s latest currency swap arrangement as a way of sending out a

“signal of comfort and confidence in the existing foreign exchange position” for the Maldives, which had reached record lows of \$440 million, far below its pending outflows.

Mr. Muizzu’s visit, his first bilateral trip to India, comes eight months after a visit to Beijing, which resulted in a number of other agreements; an economic pact to boost Chinese investments and provide currency swap arrangements; a defence pact; and debt repayment waiver for five years. Sidestepping specific questions about the Maldives-China relationship, Mr. Misri said while the two sides had discussed some “regional” issues, the “focus really was on discussing bilateral relations today”.

(With inputs from Meera Srinivasan in Colombo)

India signs \$750 million currency swap deal with Maldives

भारत ने मालदीव के साथ 750 मिलियन डॉलर की मुद्रा स्वैप डील पर हस्ताक्षर किए

- **India signed a currency swap agreement worth \$750 million to support the Maldives during its current foreign currency crunch.**
- **भारत ने मालदीव के विदेशी मुद्रा संकट के दौरान मदद करने के लिए 750 मिलियन डॉलर की मुद्रा स्वैप समझौते पर हस्ताक्षर किए हैं।**

Key Agreements Signed

महत्वपूर्ण समझौते किए गए

- \$400 million is provided under a currency swap arrangement by the Reserve Bank of India and an additional ₹3,000 crore (\$357 million).
- भारतीय रिजर्व बैंक द्वारा 400 मिलियन डॉलर की मुद्रा स्वैप व्यवस्था के तहत और अतिरिक्त ₹3,000 करोड़ (\$357 मिलियन) प्रदान किए गए हैं।

Tourism and RuPay Card Launch

पर्यटन और रुपये कार्ड लॉन्च

- India is one of the largest tourism markets for the Maldives, and a RuPay card system will be launched.
- भारत मालदीव के सबसे बड़े पर्यटन बाजारों में से एक है, और एक रुपये कार्ड प्रणाली शुरू की जाएगी।

Additional Cooperation

अतिरिक्त सहयोग

- India and Maldives agreed on cooperation in various sectors, including trade, judicial training, sports, and youth affairs.
- भारत और मालदीव ने व्यापार, न्यायिक प्रशिक्षण, खेल और युवा मामलों सहित विभिन्न क्षेत्रों में सहयोग पर सहमति व्यक्त की।

1. Welcoming Indian Tourists

भारतीय पर्यटकों का स्वागत

- Maldives hopes to welcome back Indian tourists, who had reduced their visits due to social media campaigns.
- मालदीव को उम्मीद है कि वह भारतीय पर्यटकों का स्वागत करेगा, जिन्होंने सोशल मीडिया अभियानों के कारण अपनी यात्राओं को कम कर दिया था।

Consider the following statements regarding the recent currency swap agreement between India and Maldives:

- 1. The currency swap agreement signed is worth \$750 million to help the Maldives with its foreign currency crunch.**
- 2. The deal includes \$400 million provided by the Reserve Bank of India.**
- 3. The agreement will also launch a UPI (Unified Payments Interface) card system in the Maldives.**

Which of the above statements is/are correct?

- (a) 1 and 2 only**
- (b) 1 and 3 only**
- (c) 2 and 3 only**
- (d) 1, 2, and 3**

IN BRIEF



Nutrition support for TB patients hiked to \$1,000

The Union Health Ministry on Monday unveiled the newly revised support under the TB India Pradhan Mantri Kisan Mitan Yojana...

NCERT, Amazon join hands to ensure textbook availability

The National Council for Educational Research and Training (NCERT) has tied up with Amazon India...

DGCA bans some B-737s on low-visibility landing routes

Aviation regulator warns airlines of faulty rubber component on these aircraft; directive comes after a low-of-crash incident involving a United Airlines flight reported in the U.S. in February

Jayashri Choudhury

NEW DELHI

The Directorate General of Civil Aviation has issued a new advisory...



An India Express says the aircraft on its flight near the specific rubber part mentioned in the DGCA advisory.

The advisory, which covers aircraft of Boeing 737-400 and MAX 8 aircraft, bans some B-737s on low-visibility landing routes...

The DGCA issued a ban on some B-737s on low-visibility landing routes...

The DGCA issued a ban on some B-737s on low-visibility landing routes...

UGC to recognise 'outstanding' Ph.D. research with award

R. Indira

CHENNAI

The University Grants Commission (UGC) has announced a Ph.D. excellence scheme to recognise original research work...

The UGC will award Ph.D. excellence scheme to recognise original research work...

The UGC will award Ph.D. excellence scheme to recognise original research work...

The UGC will award Ph.D. excellence scheme to recognise original research work...

India slipped on academic freedom index over the past decade: report

Mansi Desai

NEW DELHI

Over the past 10 years, India has plummeted on the academic freedom index...



Academics' efforts have yielded significant results in the past decade...

The report has looked at 100 countries in Africa, Asia, Europe, Latin America, the Middle East, Oceania, and the Pacific...

India's score fell from 62.2 points in 2003 to 50.2 points in 2010...

The report also noted that India's score fell from 62.2 points in 2003 to 50.2 points in 2010...

Ultra-processed, fast food leading cause of diabetes in India: study

Shashi Shrivastava

NEW DELHI

A diet rich in "ultra-processed" products and products of refined grains...



Consumption of ultra-processed foods is linked to higher diabetes risk...

The study found that ultra-processed foods are linked to higher diabetes risk...

The study found that ultra-processed foods are linked to higher diabetes risk...

The study found that ultra-processed foods are linked to higher diabetes risk...

CROSSWORD 14300. To solve the puzzle, visit www.hindu.com. Includes a crossword grid and a list of clues.

SUDOKU. Includes a 9x9 grid with numbers and a list of clues for the puzzle.

FAITH Navaratri chanting. A religious article discussing the significance of Navaratri and the power of Lakshmi.

DGCA bans some B-737s on low-visibility landing routes

Aviation regulator warns airlines of a faulty rudder component on these aircraft; directive comes after a loss-of-control incident involving a United Airlines flight reported in the U.S. in February

Jagriti Chandra
NEW DELHI

The Directorate General of Civil Aviation has asked operators of Boeing 737 aircraft with a specific rudder part not to use the jets for low-visibility landings owing to a "possible risk of jamming". The directive is based on a loss-of-control incident involving a United Airlines flight in New Jersey, U.S., in February.

The advisory, which comes ahead of the fog season, is effective for Boeing 737 NG and MAX models, a senior DGCA official said.

The rudder in the tail section is used to control the yawing, or side-to-side movement of the nose of the aircraft. Air India Express has 61 Boeing 737s in service, Akasa Air 25 and SpiceJet 11. Air India Express said five aircraft on its fleet had the specific rudder part, while SpiceJet said none of its had the snag-prone component. Akasa Air did not reply to a query mailed to it.

The DGCA's advisory is specifically for the Collins Aerospace SVO-730 rudder



Air India Express says five aircraft on its fleet have the specific rudder part mentioned in the DGCA advisory. FILE PHOTO

actuator. "All Category IIIB approach, landing, and rollout operations (including practice or actual auto-land) must be discontinued for [these] airplanes until further notice," the DGCA has advised airlines.

CAT IIIB approach is a precision aid used in low-visibility conditions and includes two radio beams which together provide pilots with both vertical and horizontal guidance during a landing. It can be used when the runway visibility range is less than 175 metres but not less than 50 metres.

The DGCA has asked airlines to carry out a safety risk assessment, inform crew about the possibility of a jammed rudder actuator, include discussion about the potential rudder control system and conduct practice sessions involving mitigation measures during trainings.

"We have initiated the process of compliance in adherence to the regulatory requirements," an Air India Express spokesperson said.

The rudder rollout guidance actuator, which is installed in the tail of some

B-737NG and 737MAX aircraft, is designed to control the rudder's movement during Category IIIB approach, landing and taxiing operations. Although it is not used in non-precision landings, the actuator remains mechanically engaged with the rudder system.

The DGCA caution follows a strongly worded letter from the U.S. accident investigation body, the National Transport Safety Board, to its aviation safety regulator, Federal Aviation Authority, last week, accusing the latter of not taking the issue of the rudder actuator malfunction seriously even six months after a preliminary report into the February incident when pilots complained of a problem with the rudder part while landing at the Newark Liberty International Airport, New Jersey.

On September 26, the NTSB said its investigators tested the rudder control components from that and another aircraft and found that in a cold environment, the actuators' function was "significantly compromised."

DGCA bans Boeing 737s on low-visibility landings

DGCA ने कम दृश्यता वाले मार्गों पर कुछ Boeing 737 विमानों पर प्रतिबंध लगाया

- DGCA has issued a directive to airlines operating Boeing 737 aircraft to avoid using them for low-visibility landings due to a potential risk of rudder jamming.
- DGCA ने एयरलाइनों को निर्देश दिया है कि वे Boeing 737 विमानों का कम दृश्यता वाले मार्गों पर उपयोग न करें क्योंकि रडर जाम होने का संभावित खतरा है।

Incident Basis

घटना का आधार

- The directive follows a loss-of-control incident involving a United Airlines Boeing 737 in New Jersey in February.
- यह निर्देश फरवरी में न्यू जर्सी में यूनाइटेड एयरलाइंस के एक Boeing 737 विमान के नियंत्रण खोने की घटना के बाद आया है।

Affected Models प्रभावित मॉडल

- The directive applies to Boeing 737NG and 737MAX aircraft.
- यह निर्देश Boeing 737NG और 737MAX विमानों पर लागू होता है।

Risk Assessment

जोखिम मूल्यांकन

- Airlines have been advised to conduct a risk assessment and include the rudder issue in crew training sessions.
- एयरलाइनों को जोखिम मूल्यांकन करने और चालक दल के प्रशिक्षण सत्रों में रडर समस्या को शामिल करने की सलाह दी गई है।

1. Precautionary Measures

सावधानियां

- The DGCA caution comes after concerns raised by the U.S. National Transport Safety Board (NTSB) regarding the rudder system malfunction.
- DGCA ने यह चेतावनी U.S. National Transport Safety Board (NTSB) द्वारा रडर सिस्टम में खराबी की चिंताओं के बाद जारी की है।

Consider the following statements regarding the DGCA's directive on Boeing 737 aircraft:

- 1. The DGCA has banned all Boeing 737s from operating in India.**
- 2. The directive was issued due to concerns of rudder jamming, specifically during low-visibility landings.**
- 3. The directive follows an incident involving a Boeing 737 in New Jersey earlier this year.**

Which of the above statements is/are correct?

- (a) 1 and 2 only**
- (b) 2 and 3 only**
- (c) 1 and 3 only**
- (d) 1, 2, and 3**

UGC to recognise 'outstanding' Ph.D. research with award

R. Sujatha

CHENNAI

The University Grants Commission (UGC) has instituted a Ph.D. excellence citation to recognise original research work by scholars every year.

"The UGC took the decision in its October 3 meeting to recognise outstanding Ph.D. research work in Indian universities," UGC Chairman M. Jagadesh Kumar said. The guidelines will be released soon.

The decision was made based on a study by the UGC of Ph.D.s awarded between 2011 and 2018 which found that the overall admission had grown at a rate of 10% annually and the number of Ph.D. admissions doubled from 77,798 in 2010-11 to 1,61,412 in 2017-18, he said. Science (30%), engineering and technology (26%) and social sciences (12%) accounted for the largest pool of Ph.D.s awarded during the period.

For the award, State, Central, private and deemed universities, recognised under Section 2(f) of the UGC Act and accredited by NAAC, are eligible for participation.

For a Ph.D. thesis to be considered for the citation,

A study by the UGC found that the overall admission for Ph.D. had grown at a rate of 10% annually

the criteria include uploading the thesis on Infilibnet and the award of the degree, in accordance with UGC regulations, between January 1 and December 31 of the year in which it is recommended for recognition.

A university may nominate five theses, one each from five disciplines - sciences (including agricultural, medical sciences); engineering and technology; social sciences (including education and humanities), Indian languages, and commerce and management.

Two theses will be selected from each discipline for the award. The selection committee for the streams will be constituted by the UGC and each committee will select two candidates from their respective streams, Mr. Kumar said.

The UGC will call for nominations from universities in January and the awards will be distributed on September 5.

UGC to Recognise Outstanding Ph.D. Research UGC उत्कृष्ट पीएचडी शोध को मान्यता देगा

- The University Grants Commission (UGC) has instituted a Ph.D. excellence award to recognise original research work by scholars annually.
- विश्वविद्यालय अनुदान आयोग (UGC) ने विद्वानों के मौलिक शोध कार्य को मान्यता देने के लिए एक पीएचडी उत्कृष्टता पुरस्कार स्थापित किया है।

Growth in Ph.D. Admissions पीएचडी प्रवेश में वृद्धि

- UGC's study found that Ph.D. admissions grew at a 10% annual rate between 2011 and 2018, doubling from 77,798 in 2010-11 to 1,61,412 in 2017-18.
- UGC के अध्ययन से पता चला कि 2011 और 2018 के बीच पीएचडी प्रवेश दर 10% वार्षिक दर से बढ़ी, जो 2010-11 में 77,798 से बढ़कर 2017-18 में 1,61,412 हो गई।

Disciplines for Award Nomination पुरस्कार नामांकन के लिए विषय

- Nominations can be made from five streams: sciences, engineering and technology, social sciences, Indian languages, and commerce and management.
- विज्ञान, इंजीनियरिंग और प्रौद्योगिकी, सामाजिक विज्ञान, भारतीय भाषाओं, और वाणिज्य और प्रबंधन की पांच धाराओं से नामांकन किया जा सकता है।

Eligibility and Nomination पात्रता और नामांकन

- Ph.D. theses must be uploaded on Inflibnet and awarded within the same year for recognition. Universities can nominate five theses, one from each discipline.
- पीएचडी थीसिस को इंफ्लिबनेट पर अपलोड किया जाना चाहिए और मान्यता के लिए उसी वर्ष में प्रदान किया जाना चाहिए। विश्वविद्यालय प्रत्येक विषय से पांच थीसिस नामांकित कर सकते हैं।

1. Award Distribution पुरस्कार वितरण

- The awards will be distributed on September 5 each year, with the UGC calling for nominations in January.
- पुरस्कारों का वितरण हर साल 5 सितंबर को किया जाएगा, और UGC जनवरी में नामांकन के लिए आह्वान करेगा।

Consider the following statements regarding the UGC Ph.D. Excellence Award:

- 1. The UGC will recognise Ph.D. theses in five disciplines every year.**
- 2. Nominations can only be made by State and Central Universities.**
- 3. The award will be given on September 5.**

Which of the above statements is/are correct?

- (a) 1 and 2 only**
- (b) 1 and 3 only**
- (c) 2 and 3 only**
- (d) 1, 2, and 3**



Nutrition support for TB patients hiked to ₹1,000

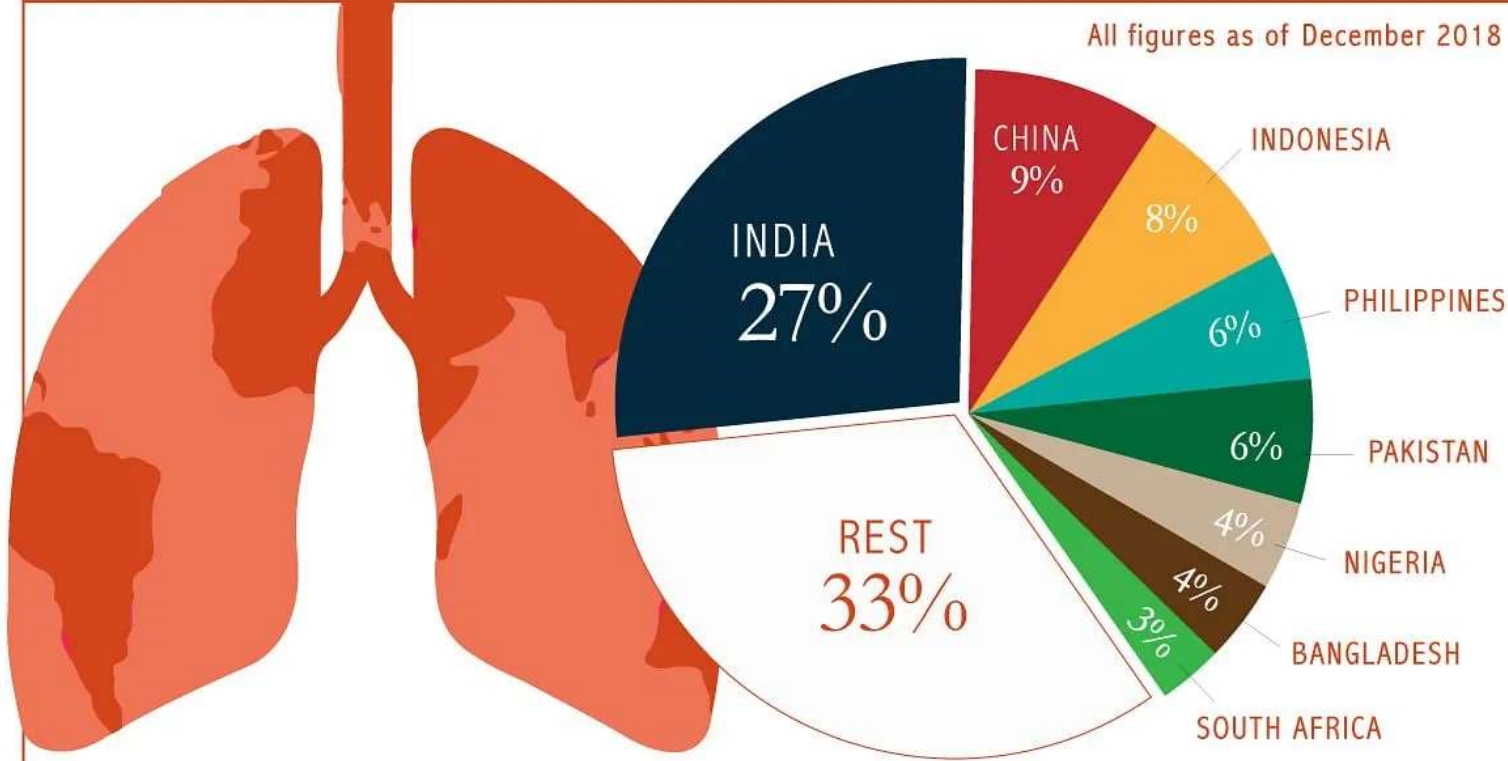
The Union Health Ministry on Monday doubled the monthly nutrition support under the Ni-kshay Poshan Yojana for tuberculosis patients under treatment from ₹500 to ₹1,000.

Additionally, all household contacts of TB patients will be covered under the Pradhan Mantri TB Mukh Bharat Abhiyaan and will be eligible to receive social support from the community. The Ministry has introduced Energy Dense Nutrition Supplementation for all patients with BMI less than 18.5 and has permitted the expansion of scope and coverage of Ni-kshay Mitra initiative under the Abhiyaan to family members (household contacts) of patients. All patients will now receive nutritional support of ₹3,000 to ₹6,000 under the Yojana.

TB CASES IN INDIA OVER THE YEARS

	India TB Report 2020	2023	2024
Estimated TB cases	26.9 lakh	27.4 lakh	27.8 lakh
Number of cases reported	24.04 lakh	24.2 lakh	25.5 lakh
Reporting from private sector	6.8 lakh	7.3 lakh	8.4 lakh
% cases from private sector	28.20%	30%	32.90%
Estimated mortality	4.36 lakh	3.2 lakh	3.2 lakh

INDIA HAS LARGEST NUMBER OF TUBERCULOSIS PATIENTS IN THE WORLD



TOTAL NUMBER OF PEOPLE
IN THE WORLD SUFFERING
FROM TUBERCULOSIS: **1 crore**

TOTAL NUMBER OF PEOPLE
IN INDIA SUFFERING FROM
TUBERCULOSIS: **26.9 lakh**

DEATHS DUE TO TUBERCULOSIS
FELL FROM **1.6 million** IN 2017
TO **1.5 million** IN 2018

India slipped on academic freedom index over the past decade: report

Maitri Porecha

NEW DELHI

Over the past 10 years, India has plummeted on the academic freedom index ranks, according to the “Free to Think 2024” annual report published by the Scholars at Risk (SAR) Academic Freedom Monitoring Project.

SAR is a network of 665 universities across the globe, including Columbia University, Duke University, and New York University. The report has looked extensively at India, Afghanistan, China, Colombia, Germany, Hong Kong, Iran, Israel, Nicaragua, Nigeria, Occupied Palestinian Territory, Russia, Turkiye, Sudan, Ukraine, the U.K. and the U.S., while documenting 391 attacks on higher education communities in 51 countries between July 1, 2023 and June 30, 2024.

The report notes that India’s academic freedom



JNU students’ outfits have agitated against stringent measures such as penalising of protests in many areas of the campus. PTI

slipped from 0.6 points to 0.2 points from 2013 to 2023. “In India, the most pressing threats to the academic freedom of students and scholars included the ruling Bharatiya Janata Party’s efforts to exert political control and impose a Hindu nationalist agenda on universities and university policies limiting student protest,” the report states.

According to the Academic Freedom Index, In-

dia now ranks as “completely restricted”, its lowest score since the mid-1940s. The report highlights some instances of the Indian government putting in stringent measures on campuses.

Many restrictions

Both Jawaharlal Nehru University and South Asian University announced new policies restricting student expression. While JNU

barred students from protesting near academic buildings, SAU barred students from protesting on campus at all.

The reporting period saw the BJP-led Union government battle with State governments over the control of higher education.

In Kerala, Governor Arif Mohammed Khan, an appointee of the Union government, fought with the State government over a legislative amendment that would have him replaced as the Chancellor of the State’s universities.

In April 2024, the Kerala government filed an appeal in the Supreme Court against the action of President Droupadi Murmu withholding assent to the proposed amendment.

“Similar battles for control of higher education took place in other States, including Tamil Nadu, West Bengal, and Punjab,” the report points out.

India's Decline on Academic Freedom Index भारत का अकादमिक स्वतंत्रता सूचकांक में गिरावट

- Over the past 10 years, India has dropped significantly on the academic freedom index, according to the "Free to Think 2024" report by the Scholars at Risk (SAR) network.
- पिछले 10 वर्षों में, SAR नेटवर्क की "फ्री टू थिंक 2024" रिपोर्ट के अनुसार, भारत का अकादमिक स्वतंत्रता सूचकांक में काफी गिरावट आई है।

Global Universities in the Study वैश्विक विश्वविद्यालयों का अध्ययन

- SAR is a network of 665 universities worldwide, including Columbia, Duke, and New York University.
- SAR दुनिया भर में 665 विश्वविद्यालयों का एक नेटवर्क है, जिसमें कोलंबिया, ड्यूक और न्यूयॉर्क विश्वविद्यालय शामिल हैं।

India's Rank Over Time समय के साथ भारत की रैंक

- India's score dropped from 0.6 in 2013 to 0.2 in 2023, now categorised as "completely restricted," the lowest since the mid-1940s.
- भारत का स्कोर 2013 में 0.6 से गिरकर 2023 में 0.2 हो गया, जिसे अब "पूरी तरह से प्रतिबंधित" के रूप में वर्गीकृत किया गया है, जो 1940 के दशक के बाद से सबसे निचला स्तर है।

Key Factors in Decline गिरावट के प्रमुख कारण

- The report cites threats such as political control over universities, restrictions on student protests, and the promotion of a Hindu nationalist agenda by the ruling party.
- रिपोर्ट में विश्वविद्यालयों पर राजनीतिक नियंत्रण, छात्र विरोधों पर प्रतिबंध, और सत्तारूढ़ पार्टी द्वारा हिंदू राष्ट्रवादी एजेंडा को बढ़ावा देने जैसे कारणों का उल्लेख किया गया है।

Impact on Student Protests छात्र विरोध पर प्रभाव

- Universities like Jawaharlal Nehru University (JNU) and South Asian University have implemented stringent measures to restrict student protests and expressions.
- जवाहरलाल नेहरू विश्वविद्यालय (JNU) और साउथ एशियन यूनिवर्सिटी जैसी विश्वविद्यालयों ने छात्र विरोध और अभिव्यक्ति को प्रतिबंधित करने के लिए कड़े कदम उठाए हैं।

State vs. Central Government Conflicts राज्य बनाम केंद्र सरकार के टकराव

- The report highlights conflicts between the BJP-led Union government and state governments over control of higher education, including a recent battle in Kerala.
- रिपोर्ट में उच्च शिक्षा के नियंत्रण को लेकर भाजपा के नेतृत्व वाली केंद्र सरकार और राज्य सरकारों के बीच संघर्ष का उल्लेख किया गया है, जिसमें हाल ही में केरल में हुए टकराव का उदाहरण दिया गया है।

Consider the following statements regarding India's performance on the Academic Freedom Index:

- 1. India's academic freedom score dropped from 0.6 in 2013 to 0.2 in 2023.**
- 2. The report attributes the decline to political control and restrictions on student protests.**
- 3. India now ranks as "partially restricted" on the index.**

Which of the above statements is/are correct?

- (a) 1 and 2 only**
- (b) 1 and 3 only**
- (c) 2 and 3 only**
- (d) 1, 2, and 3**

Ultra-processed, fast food leading cause of diabetes in India: study

Bindu Shajan Perappadan
NEW DELHI

A diet rich in “advanced glycation end products (AGEs)”, which includes ultra-processed and fast food, is among the leading cause of India being the world’s diabetic capital, notes a first-of-its-kind clinical trial finding published in the *International Journal of Food Sciences and Nutrition* recently.

AGEs are harmful compounds that are formed when sugars react with fats or proteins during high-temperature cooking, such as frying and roasting. They are directly linked to inflammation, a key factor behind diabetes.

The study was funded by the Department of Biotechnology, Ministry of Science and Technology.

The study found that low-AGE diets exhibited improvement in the insulin-sensitivity and reduc-



Having AGE-rich foods leads to inflammation in the body, says the study. GETTY IMAGES

tion in the inflammatory levels compared to high-AGE diets. “The study revealed that low AGE diets could be a potential strategy to reduce diabetes risk,” it said.

Prevalence of diabetes, pre-diabetes, and obesity is on the rise globally, and in Asian Indians, there are currently 101 million individuals with diabetes. Earlier studies in the West have demonstrated an increased risk of chronic diseases due to the consumption of processed foods

that are high in fat, sugar, salt, and AGEs.

The current study shows that the consumption of AGE-rich foods leads to inflammation in the body. “This is because glycation – a non-enzymatic chemical process in which a sugar molecule binds to a protein or lipid molecule – can result in harmful reactions in the body,” notes the study.

It recommends that by following a low-AGE diet (fruits, vegetables, whole grains, and low-fat milk), overweight and obese individuals can reduce oxidative stress in their bodies, which refers to the imbalance of free radicals and antioxidants that results in inflammation and cell damage.

As part of the clinical trial, adults who are either overweight or obese but non-diabetic were divided into two groups. While one group was given a low-AGE

diet for 12 weeks, the other was put on a high-AGE diet. At the end of 12 weeks, the researchers found that insulin sensitivity was significantly increased in the low-AGE diet group, compared with the high-AGE diet group. The low-AGE diet group also showed lowered risk of future type 2 diabetes.

Dr. V. Mohan, chairman, Madras Diabetes Research Foundation, which carried out the study, said, “By adopting healthier diets such as green leafy non starchy vegetables, fruits, boiled foods rather than fried ones and cutting down on bakery foods and sugary foods, one can have diets which are low in dietary AGEs and thus lower the risk of type 2 diabetes.”

Dr. Mookambika Ramya Bai, the first author of the study, said, “It means going back to the healthier diets that our forefathers ate.”

AGE-rich Diet and Its Impact AGE युक्त आहार और उसका प्रभाव

- A diet high in Advanced Glycation End Products (AGEs), commonly found in ultra-processed and fast foods, is identified as a leading cause of diabetes in India.
- एजीई (उन्नत ग्लाइकेशन एंड प्रोडक्ट्स) से युक्त आहार, जो आमतौर पर अति-प्रसंस्कृत और फास्ट फूड में पाया जाता है, भारत में मधुमेह का एक प्रमुख कारण माना जाता है।

Formation of AGEs एजीई का निर्माण

- AGEs are harmful compounds formed when sugars react with fats or proteins during high-temperature cooking, such as frying or roasting.
- एजीई तब बनते हैं जब शर्करा वसा या प्रोटीन के साथ उच्च तापमान पर खाना पकाने के दौरान प्रतिक्रिया करती है, जैसे कि तलने या भूनने में।

Link to Inflammation and Diabetes सूजन और मधुमेह से संबंध

- These compounds cause inflammation in the body and are directly linked to the risk of diabetes.
- ये यौगिक शरीर में सूजन उत्पन्न करते हैं और सीधे मधुमेह के खतरे से जुड़े होते हैं।

Study Findings अध्ययन के निष्कर्ष

- A clinical trial published in the International Journal of Food Sciences and Nutrition suggests that low-AGE diets improve insulin sensitivity and reduce the risk of diabetes.
- अंतर्राष्ट्रीय खाद्य विज्ञान और पोषण पत्रिका में प्रकाशित एक नैदानिक परीक्षण से पता चलता है कि कम एजीई आहार इंसुलिन संवेदनशीलता में सुधार करता है और मधुमेह के जोखिम को कम करता है।

Diet Recommendations आहार अनुशंसाएँ

- The study recommends a low-AGE diet consisting of fruits, vegetables, whole grains, and low-fat milk, while cutting down on baked goods, sugary foods, and processed items.
- अध्ययन फलों, सब्जियों, साबुत अनाज, और कम वसा वाले दूध वाले कम एजीई आहार की सलाह देता है, जबकि बेकरी उत्पादों, मीठे खाद्य पदार्थों और प्रसंस्कृत वस्तुओं को कम करने की सलाह दी जाती है।

Diabetes Prevalence मधुमेह की व्यापकता

- There are currently 101 million individuals with diabetes in Asia, with rising numbers in India.
- एशिया में वर्तमान में 101 मिलियन मधुमेह रोगी हैं, और भारत में यह संख्या लगातार बढ़ रही है।

Results of the Trial परीक्षण के परिणाम

- After 12 weeks, the low-AGE diet group showed significant improvements in insulin sensitivity and a lowered risk of future Type 2 diabetes.
- 12 हफ्तों के बाद, कम एजीई आहार समूह में इंसुलिन संवेदनशीलता में महत्वपूर्ण सुधार और भविष्य के प्रकार 2 मधुमेह के जोखिम में कमी देखी गई।

Consider the following statements regarding the study on ultra-processed foods and diabetes:

- 1. AGEs are harmful compounds formed during high-temperature cooking processes like frying.**
- 2. The study suggests that a low-AGE diet improves insulin sensitivity.**
- 3. AGEs are not linked to inflammation in the body.**

Which of the above statements is/are correct?

- (a) 1 and 2 only**
- (b) 1 and 3 only**
- (c) 2 and 3 only**
- (d) 1, 2, and 3**

India's 'Produnova queen' Dipa retires

Sabi.Hussain

@timesofindia.com

New Delhi: From a five-year-old flat-footed girl who was told that she couldn't ever become a gymnast, to etching her name in the history books after her ground-breaking fourth-place finish in the women's vault final at the Rio Olympics 2016, Dipa Karmakar's inspiring tale of grit, determination and success is nothing short of a fairytale.

The Tripura girl changed the face of Indian gymnastics after becoming the first female gymnast from the country to compete at the Olympics and could have landed herself on the podium had she not missed the bronze by an agonisingly 0.15 points to finish fourth in Rio.

On Monday, Dipa quietly walked into retirement, announcing that she will no longer be vaulting in the competition arena owing to recurring injuries – from broken ankle and troublesome knees to shoulder ligament tear and, most recently, a wrist fracture.

DIPA'S AWARD CABINET

- Named the 'Gymnast of the Year' by Gymnastics Federation of India (2010)
- Arjuna award (2015)
- Khel Ratna (2016)
- Featured in Forbes Magazine's '30 Under 30' Asia list (2017)
- Padma Shri (2017)



WHAT IS PRODUNOVA

On her way to winning bronze on vault at the 2014 CWG, she became only the fifth female athlete to have landed the 'Produnova'. The move, nicknamed the 'Vault of Death', involves completing two somersaults before landing on the feet safely. It was named after Russia's Elena Produnova.

Dipa, India's very own 'Produnova queen', told TOI that the retirement thoughts crossed her mind two-three weeks ago. After consulting her parents and long-time coach Bishweshwar Nandi, she decided to hang up her boots.

"My body wasn't allowing me to continue because of injury issues. I had two Anterior Cruciate Ligament (ACL) surgeries, then was troubled by shoulder, ankle and knee injuries. Recently, I had a wrist fracture. I can't take painkillers and compete. Its effect will eventually taper off. All good things must come to an end. I believe it's best to retire from

the sport. I started gymnastics as a five-year-old and it's been a beautiful 25-year-long journey as a gymnast. At 31, I think it's time to pass on the mantle to the younger generation," Dipa said.

Dipa had been struggling with injuries ever since she underwent a surgery to treat an ACL in 2017 and later after the Jakarta Asiad the next year where she was forced to pull out of the team final. She couldn't compete at the Tokyo Olympics owing to right knee injury. She was suspended for 21 months (Oct 11, 2021-July 10, 2023) for returning positive for banned substance higenamine.

"I do know what she did for her sport was history breaking. So I know back home she inspired a lot of other little kids to be just like her which means a lot. And for us to watch someone break history in the same sport that we do, it's amazing to watch and watch it blossom. She's exciting."

– Six-time Olympic champion Simone Biles on Dipa in 2017

Dipa cherishes her historic vault bronze at the 2014 Glasgow CWG the most. "Everyone talks about my fourth-place finish in Rio and the Produnova. That moment will always be special to me. But what gave me and the Indian gymnastics the real recognition? It was the CWG bronze won in 2014.

"I'll definitely rate it as the high point. The recent gold at the Asian Championships in May, I'll also rate it highly. When everyone thought that Dipa was finished because of injuries and doping suspension, I silenced my critics with that performance," she said.

Banjara Virasat Museum

- **Prime Minister Narendra Modi inaugurated the Banjara Virasat Museum in Pohardevi, Washim, Maharashtra, highlighting the heritage of the Banjara community.**

About the Banjara community.

- **The Banjara are a nomadic community primarily found in Rajasthan, North-West Gujarat, Western Madhya Pradesh, and Eastern Sindh (pre-independence Pakistan).**

- **They claim descent from the Agnivanshi Rajputs and are known by various names, including Banjari, Pindari, and Lambani.**
- **Together with the Domba, they are sometimes referred to as the “Gypsies of India.”**
- **The Banjara are divided into three tribes: Maturia, Labana, and Charan.**
- **They have migrated to several Indian states, including Andhra Pradesh, Haryana, Karnataka, and Maharashtra, adopting local languages such as Lambadi, Hindi, and Telugu.**

Rani Durgavati

- **Rani Durgavati, the Queen of the Gond Kingdom of Garha-Katanga, was commemorated on her 500th Birth Anniversary on October 5.**

About Rani Durgavati

- **Born in 1524 into the Chandela dynasty of Mahoba, she was the daughter of Raja Salbahan of Ratha and Mahoba.**

- **She was married to Dalpat Shah, son of Gond King Sangram Shah, who ruled over the powerful Garha-Katanga kingdom, spanning the Narmada Valley and parts of northern Madhya Pradesh.**
- **After Dalpat Shah's death in 1550, Rani Durgavati became regent for her young son, Bir Narayan, and ruled the kingdom with courage.**
- **According to Tarikh-i-Firishta Durgavati repulsed Baz Bahadur, the ruler of Malwa, who had attacked her kingdom between 1555 and 1560.**

- **She fiercely defended her kingdom against the Mughal Subedar Abdul Mazid Khan, dying on the battlefield.**
- **Later Akbar restored control of the region to Chandra Shah, the younger son of Sangram Shah, after he accepted Mughal suzerainty.**

Black Carbon

- **India's potent black carbon emissions from kerosene lamps make up 10% of total residential emissions: Study**

About Black Carbon

- **Black Carbon (BC) is a short-lived pollutant formed through incomplete combustion of fossil fuels, biofuels, and biomass.**
- **Unlike CO₂, it has a short atmospheric lifetime (days to weeks), but its warming potential is much higher.**

- **It causes respiratory and cardiovascular diseases due to fine particulate matter (PM2.5).**
- **The Climate and Clean Air Coalition (CCAC), founded in 2012, is a voluntary partnership convened within the United Nations Environment Programme (UNEP).**
- **Its primary goal is to reduce emissions of short-lived climate pollutants (SLCPs), which are potent contributors to global warming and air pollution.**

World Cotton Day

- **October 7 is celebrated each year as World Cotton Day.**

About

- **The idea for World Cotton Day originated from the Cotton Four nations, Burkina Faso, Benin, Chad, and Mali aiming to promote cotton by-products and their markets.**
- **The first World Cotton Day (WCD) event was initiated in Geneva and observed on October 7, 2019.**

Cotton Production in India

- **India is the second largest producer of cotton in the world after China.**
- **India accounts for 23% of the total global production.**
- **The Central Zone (which comprises states like Gujarat, Maharashtra, and Madhya Pradesh) are the biggest producer of cotton in India.**

- **Cotton cultivation requires a hot and sunny climate with an extended frost-free period.**
- **It thrives best in warm and humid conditions.**
- **The crop can be successfully cultivated in a variety of soil types, such as well-drained deep alluvial soils in the northern regions, black clayey soils of varying depths in the central region.**

India's Tripartite Agreement

Recently, Nepal, India and Bangladesh signed a tripartite agreement to facilitate cross-border electricity trade.

- **Under the agreement, Nepal will export its surplus electricity to Bangladesh from 15th June to 15th November each year.**
 - **India will facilitate the transmission of electricity from Nepal to Bangladesh.**

In the first phase, Nepal will export 40 MW of hydroelectric power to Bangladesh through Indian territory at the rate of 6.4 cents per unit.

India, Nepal and Bangladesh are part of many International groups

. South Asian Association for Regional Cooperation (SAARC) Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Bangladesh, Bhutan, India, and Nepal (BBIN) Non Aligned Movement

Word of the day

Berate:

censure severely or angrily

Synonyms: trounce, lambaste, dress down, scold, take to task, rebuke, remonstrate, reprimand, lecture, chide

Usage: *He has often berated him about his lack of vision.*

Pronunciation: [newsth.live/beratepro](https://www.newsth.live/beratepro)

International Phonetic Alphabet: /bɪˈreɪt/



RAILWAY COURSES

ALL CATEGORIES

ALP

COMPLETE SCIENCE SPECIAL RRB ALP & TECHNICIAN
For RRB ALP 2023
JOIN NOW
WWW.CLASS24.STUDY

GENERAL SCIENCE & BASIC SCIENCE & ENGG. RAILWAY EXAM

Features

- ✓ complete engineering Drawing
- ✓ complete general science
- ✓ MCQ's for each topics
- ✓ practice (theoretical & numerical)
- ✓ printable complete notes (pdf's)
- ✓ ncert exemplar
- ✓ 150+ hours video course

40% OFF
USE CODE: R40

RRB ALP/TECHNICIAN
FOR ALL ITI TRADE EXAM
COMPLETE TRADE THEORY ECLECTRICIAN

FEATURES

- ELECTRICIAN FIELD
- NUMERICAL SESSION
- PYQS
- HINDI+ ENGLISH NOTES
- RECORDED CLASSES
- REVISION / MODULE
- PRACTISE SESSION

₹999/- ₹ 799/-
USE CODE TRADE

RRB ALP/Technician
For All ITI Trade Exam

Complete Trade Theory Mechanical/Automobile

रफ़्तार Batch

Extra Discount for Shubham Sir Batch Students

Shubham Sir
USE CODE TRADE

Course Fee: ₹ 999/- ₹ 799/-

- Fitter/Welder/Tuner
- Diesel/Heat Engine/Trac
- Tractor Mechanic
- Numerical Session
- PYQs
- Hindi+English Notes
- Regular Live Classes

RAILWAY COMPLETE BATCH

Features

- ✓ General Science by Shipra Ma'am
- ✓ Basic Science and Engg by Shubham Sir
- ✓ Maths by Umesh Sir
- ✓ Reasoning by Shubham Sir
- ✓ Theory of each and every chapter in detail
- ✓ Printable Notes
- ✓ MCQs
- ✓ 100 Free Test

60% OFF
USE CODE: D60

BASIC SCIENCE AND ENGINEERING COURSE (ALP / TECH) 2024

HINDI & ENGLISH CONTENT DOUBT SESSIONS

1. THEORY + PRACTISE PDF
2. NUMERICALS
3. ALL PHYSICS TOPIC
4. ENGG.TOPICS
5. SAFETY PRECAUTIONS
6 LITERACY & ENVIRONMENT
7. 350 QUESTIONS BOOKLET

30% OFF
USE CODE RRR30

RAILWAY GENERAL SCIENCE FOUNDATION BATCH 2024

- Physics
- Chemistry
- Biology
- Previous Year Questions
- Numericals
- Top Expected Questions

Company

Help & support


Exams

Popular Courses

Start your learning

 Class24

 Chat With Us

A photograph of a group of people in a meeting, clapping their hands. The image is slightly blurred and has a dark overlay. The clapping is the central focus, with hands visible in the foreground and background. The lighting is soft, and the overall mood is positive and celebratory.

Thank you
guys.
