

Unregulated use of GM: A cautionary tale

A quarter or more of India's **cultivated area** under cotton comprises **genetically modified** (GM) **hybrids incorporating** "unapproved" herbicide-tolerant (HT) and *Bacillus thuringiensis* (Bt) **traits**, according to a seed industry-commissioned study. This isn't surprising. Cotton farmers today face problems of labour **scarcity** for manual **weeding** and pink **bollworm** insect attacks. They would be **inclined to** plant hybrids that enable them to **spray** chemical **herbicides** and provide protection against a broader **spectrum** of bollworms and **sucking pests**. The **existing** "approved" GM Bt hybrids do not contain genes **conferring** tolerance to weed killers such as glyphosate or control against pink bollworm. The study shows the presence of unapproved HT and next-generation Bt genes in over half of the seed/leaf samples collected from farmers' fields across 16 districts of Maharashtra, Telangana, Andhra Pradesh and Rajasthan.

The study's **findings** are a clear **demonstration** of farmer acceptance of HT technology. For cotton growers, this isn't about **ideology**. Manual weeding **costs**, even when labour is available, **come** to Rs 12,000-15,000 per acre now, whereas it is only Rs 750-850 for 2-3 rounds of glyphosate **application**. **The same goes for** hybrids **harbouring** the Vip3A Bt gene. While derived from the same soil bacterium as the Cry1Ac and Cry2Ab genes present in the "approved" Bt hybrids, it has a different mode of action that is effective even against the pink bollworm. Neither the glyphosate tolerance nor the Vip3A Bt gene traits have, however, been officially authorised for **insertion** into cotton plants for commercial cultivation. Farmers are, then, growing their hybrids via **sourcing** of seeds from illegal channels. That includes traders and breeders who have **undertaken introgression** of the traits, **bypassing** the government's biosafety and regulatory approval system.

The loser is not just the organised seed industry. Sales of "legal" Bt cotton hybrid seeds have fallen from 59.6 million to 46.3 million packets between 2022-23 and 2025-26. This, even as the unauthorised HT-Bt seed market has grown to an **estimated** 8.2-8.8 million packets. A bigger loser is the farmer, who is being denied the benefits of **deployment** of the advanced GM traits in the hybrids of genuine **research-backed** seed companies, **as opposed to fly-by-night** operators. The **blame** for this — **widespread** farmer demand-led, yet unregulated adoption of advanced GM technology — **lies solely** with the government. By blocking **commercialisation** and field trials of GM crops, based more on ideological positions than **empirical** regulatory science, it has turned India from a leading producer and exporter to a net importer of cotton.

[Practice Exercise]

- Red/blue coloring of words in the sentence indicates subject verb relationship; where 'red' denotes 'subject' and 'blue' denotes 'verb'.

Vocabulary

1. **Cautionary tale** (noun) - a story that gives a warning about a mistake or danger
चेतावनी भरी कहानी
2. **Cultivate** (verb) - farm, till, plow, grow, raise
खेती करना
3. **Genetically modified** (adjective) - having had its genetic structure changed
artificially आनुवंशिक रूप से संशोधित
4. **Hybrid** (noun) - crossbreed, cross, mixture, blend, composite
संकर
5. **Incorporate** (verb) - integrate, include, merge, combine, assimilate
शामिल करना
6. **Trait** (noun) - characteristic, feature, attribute, quality, property
विशेषता
7. **Scarcity** (noun) - shortage, dearth, deficiency, lack, paucity
कमी
8. **Weeding** (noun) - clearing, hoeing, cleaning, uprooting, scraping
निराई
9. **Bollworm** (noun) - a moth caterpillar that attacks the cotton boll
सूंड़ी (कपास का कीड़ा)
10. **Incline to** (phrasal verb) - likely or wanting to do something
की ओर प्रवृत्त
11. **Spray** (verb) - sprinkle, shower, spritz, splash, scatter
छिड़कना
12. **Herbicide** (noun) - a chemical substance that farmers use to kill plants that are growing where they are not wanted
शाकनाशी
13. **Spectrum** (noun) - range, scope, gamut, extent, sweep
दायरा
14. **Sucking pest** (noun) - insects that feed on the sap of plants
रस चूसने वाले कीट
15. **Existing** (adjective) - current, present, prevailing, surviving, available
मौजूदा
16. **Confer** (verb) - bestow, grant, impart, give, present
प्रदान करना
17. **Finding** (noun) - discovery, conclusion, result, verdict, revelation
निष्कर्ष
18. **Demonstration** (noun) - exhibition, display, manifestation, proof, presentation
प्रदर्शन
19. **Ideology** (noun) - belief, doctrine, philosophy, dogma, creed
विचारधारा
20. **Application** (noun) - implementation, use, practice, utilization, administration
उपयोग
21. **The same goes for** (phrase) - applies to someone or something else as well
यही बात (किसी और पर) भी लागू होती है
22. **Harbour** (verb) - contain, hold, possess, shelter, foster
रखना / आश्रय देना
23. **Insertion** (noun) - inclusion, addition, introduction, incorporation, injection
समावेशन
24. **Source** (verb) - procure, acquire, obtain, gather, get
प्राप्त करना
25. **Undertake** (verb) - assume, shoulder, tackle, launch, initiate
जिम्मा लेना
26. **Introgession** (noun) - the transfer of genetic information from one species to another
आनुवंशिक सम्मिश्रण
27. **Bypass** (verb) - circumvent, evade, avoid, sidestep, skirt
दरकिनार करना
28. **Estimate** (verb) - calculate, assess, evaluate, gauge, appraise
अनुमान लगाना

29. **Deployment** (noun) - positioning, distribution, stationing, usage, placement
तैनाती
30. **Research-backed** (adjective) - supported or proven by scientific investigation
अनुसंधान-समर्थित
31. **As opposed to** (phrase) - in contrast with
के बजाय
32. **Fly-by-night** (adjective) - unreliable and untrustworthy, especially in business
अविश्वसनीय
33. **Widespread** (adjective) - extensive, prevalent, rampant, pervasive, sweeping
व्यापक
34. **Lie** (verb) - rest, reside, exist, dwell, consist
निहित होना
35. **Solely** (adverb) - exclusively, entirely, purely, completely, merely केवल
36. **Commercialisation** (noun) - marketing, merchandising, peddling, trading, business
व्यवसायीकरण
37. **Empirical** (adjective) - observed, practical, factual, experiential, pragmatic अनुभवजन्य

Summary of the Editorial

1. Widespread use of unauthorised GM cotton: At least a quarter of India's cultivated cotton area may contain genetically modified (GM) hybrids with unapproved herbicide-tolerant (HT) and advanced Bt traits.
2. Challenges faced by cotton farmers: Farmers are struggling with labour shortages for manual weeding and attacks by pink bollworms, which damage cotton crops.
3. Demand for herbicide-tolerant technology: HT cotton allows farmers to spray herbicides such as glyphosate to control weeds, reducing dependence on manual labour.
4. Limitations of approved GM cotton: Existing approved Bt cotton hybrids do not provide glyphosate tolerance or effective control against pink bollworms.
5. Evidence from field studies: A seed industry-commissioned study detected unauthorised HT and next-generation Bt genes in more than half of the seed and leaf samples collected from 16 districts across Maharashtra, Telangana, Andhra Pradesh and Rajasthan.
6. Farmers prioritise economic benefits: Farmers are adopting these technologies primarily to reduce cultivation costs and improve crop protection rather than for ideological reasons.
7. High cost of manual weeding: Manual weeding costs approximately ₹12,000–15,000 per acre, whereas two or three rounds of glyphosate application cost only ₹750–850.
8. Importance of the Vip3A Bt gene: The Vip3A gene provides a different mode of action from existing Cry1Ac and Cry2Ab genes and can offer protection against pink bollworms.
9. Lack of regulatory approval: Neither glyphosate-tolerant cotton nor cotton containing the Vip3A Bt gene has received official authorisation for commercial cultivation in India.
10. Illegal seed supply chains: Farmers obtain unauthorised GM seeds through illegal channels involving traders and breeders who introduce these traits without completing the required regulatory approval process.
11. Impact on the organised seed industry: Sales of legally approved Bt cotton hybrid seeds declined from 59.6 million packets in 2022–23 to 46.3 million packets in 2025–26.
12. Growth of the unauthorised market: The illegal HT-Bt cotton seed market has expanded to an estimated 8.2–8.8 million packets, reflecting farmers' growing demand for advanced GM traits.
13. Farmers face greater risks: Unregulated seeds may prevent farmers from accessing the benefits of advanced, research-backed technologies developed by reliable seed companies, while increasing their exposure to uncertain seed quality and performance.
14. Government's regulatory approach criticised: The editorial holds the government responsible for the widespread unauthorised adoption of GM cotton, arguing that restrictions on commercialisation and field trials have failed to address farmers' needs.
15. Need for science-based regulation: India should make decisions on GM crops through empirical scientific evidence, effective biosafety assessments and transparent regulatory procedures. The editorial argues that excessive restrictions have contributed to India's declining position in cotton production and exports, turning it into a net importer of cotton.

Practice Exercise: SSC Pattern Based

[Editorial Page]

1. **According to the passage, what is true regarding the Vip3A Bt gene trait?**
 - A. It is isolated from a completely distinct species of bacteria compared to Cry1Ac and Cry2Ab.
 - B. It operates through a different mode of action while remaining effective against pink bollworm.
 - C. It has been cleared for experimental field trials but barred from commercial open-market sales.
 - D. It provides simultaneous resistance against chemical weedkillers and pink bollworm.
2. **Why does the passage identify the cotton farmer as a "bigger loser" than the organized seed industry?**
 - A. Farmers bear the legal liability of purchasing illegal seeds from fly-by-night breeders.
 - B. Farmers have experienced a total collapse in cotton yields across all sixteen surveyed districts.
 - C. Farmers are deprived of advanced GM traits incorporated into genuine, research-backed seed hybrids.
 - D. Farmers must pay higher retail prices to illegal traders than to genuine seed companies.
3. **Choose the word which is MOST OPPOSITE in meaning to the word "EMPIRICAL" as used in the phrase "empirical regulatory science":**
 - A. Automatic
 - B. Rigorous
 - C. Doctrinal
 - D. Systematic
4. **Which phrase best captures the core systemic problem detailed in the passage?**
 - A. Manual labour availability deficits versus expanding chemical weedkiller costs
 - B. Farmer demand for advanced GM traits versus rigid ideological policy barriers
 - C. Research investments by genuine firms versus price wars among local seed traders
 - D. Genetic stability of commercial crops versus contamination by soil bacteria
5. **According to the passage, what occurred in the seed market between 2022–23 and 2025–26?**
 - A. Legal sales fell to 46.3 million packets while illegal sales reached 8.2–8.8 million.
 - B. Legal sales fell to 8.2–8.8 million packets while illegal sales rose to 46.3 million.
 - C. Unauthorised seeds captured more than half of the 59.6 million total seed packets.
 - D. Legal hybrid seed sales fell by a quarter across sixteen surveyed cotton districts.
6. **Direction: Rearrange the following four sentences (1, 2, 3, 4) in the proper sequence to form a meaningful, logical, and coherent paragraph.**
 1. Having already been around the block in New York City, Vamshi turns his attention to parts of the country where Indian food still means amorphous dollops of curry, and not gourmet plated venison shoulder, that was farm raised in green pastures.
 2. Zamindar's Clubhouse is bold, sophisticated, and wants to give the city something it has not seen before.
 3. On an early morning call, we discuss food, family and spices.
 4. "Indian diners tell me they finally have a place they are proud to bring their families and business clients to," says Chef Vamshi Krishna Adi about his new fine-dining restaurant in the financial hub, Charlotte, North Carolina.
 - A. 2-1-4-3
 - B. 4-2-1-3
 - C. 1-3-2-4
 - D. 3-4-1-2
7. **Direction: In the following question, the first sentence is given in its correct position, followed by four sentences marked A, B, C, and D. Rearrange the four sentences in the correct order to form a coherent paragraph.**

Jonathan is an Aldabra giant tortoise who lives at the residence of the governor of St Helena.

 - A. It isn't just "good genes" but his "epigenome" (chemicals and proteins that turn genes on or off), that keeps Jonathan youthful, scientists found.
 - B. He is 194 years old, the oldest living land animal on Earth today: the upper limit of the life expectancy for Aldabra tortoises is 93.68 years, making him some 100 years older than the typical upper lifespan limit for his species.

- C. Researchers analysed Jonathan's genome and his epigenome to understand his extraordinary longevity: and they found as many as 287 unique gene variants, which control DNA damage-repair, reduce inflammation, regulate insulin, and suppress cancer, thereby reducing the process of ageing.
- D. The longevity of Jonathan, who was likely a contemporary of Charles Darwin and Queen Victoria, has confounded scientists: but now the enigma may have been partly unravelled in a study published in Science Advances.
- A. D A C B
B. B D A C
C. C B D A
D. A C B D
8. **Select the most appropriate SYNONYM of the given word.**
Temptation
A. Chagrin
B. Enticement
C. Rancour
D. Equilibrium
9. **Select the most appropriate SYNONYM of the given word.**
Overshoot
A. Outstrip
B. Recalibrate
C. Recede
D. Obscure
10. **What does the idiom 'Burn bridges' mean?**
A. Build relations
B. Destroy opportunities
C. Open new options
D. Win trust
11. **What does the idiom 'Blow one's own trumpet' mean?**
A. Be modest
B. Boast
C. Stay humble
D. Ignore fame
12. **Select the most appropriate ANTONYM of the given word.**
Nudge
A. Impulse
B. Deterrence
C. Sophistication
D. Dexterity
13. **Select the most appropriate ANTONYM of the given word.**
Dampen
A. Strengthen
B. Vanish
C. Eclipse
D. Foster
14. **Choose the one which can be substituted for the given sentence.**
An official pardon for offenders
A. Reprieve
B. Absolution
C. Amnesty
D. Clemency

15. Choose the one which can be substituted for the given sentence.

The act of killing one's brother

- A. Fratricide
- B. Suicide
- C. Patricide
- D. Homicide

16. Find the correctly spelled word.

- A. Oprobrium
- B. Opprobrium
- C. Opprobriem
- D. Oprobbrium

17. Select the option with the correct spelling.

- A. Enthousiasm
- B. Enthusiazm
- C. Enthusiasm
- D. Enthusiam

18. Identify the grammatical error in the sentence below.

The bank will be continued to transfer the interest to your account unless instructed otherwise.

- A. interest to
- B. will be continued
- C. unless instructed
- D. to your account

19. Identify the incorrect sentence.

- A. She has got cold and cough.
- B. Only a few people came to the party.
- C. Could you lend me some of your books today?
- D. He has more sense than you have.

20. The following sentence has been divided into four parts, namely A, B, C and D, which are given in the alternatives. Select the alternative that contains the part of the sentence with an error.

Please provide a detailing explanation of the research methodology used in your recent scientific paper for clarification purposes requested by the board.

- A. Please provide a detailing explanation
- B. of the research methodology used in
- C. your recent scientific paper for
- D. clarification purposes requested by the board.

Complete the passage by filling in the blanks with the most appropriate words.

One sunny afternoon in October, we step into Matsya Restaurant, where the cosy interiors and friendly staff immediately make us feel at home. We order our favourites from the menu — items that have not changed in years — rasa vada and chilli cheese toast.

As we wait for our order, Ram Bhat, a partner in the family-run establishment, walks in.

The establishment marks 76 years since its beginnings as an Udupi home and the occasion is _____. A _____ (prompting) the family running the restaurant to look back at its roots and bring its heritage menu back _____. B _____ focus. "We want the current generation to enjoy the Udupi fare that we are known for," says Ram, before insisting that we _____ C _____ their ven pongal served with fruit pachadi. The combination does not particularly appeal to me at first, but I end up _____ D _____ (relishing) the rather unusual pairing. "This is typical Udupi style. The fruit pachadi is made using fresh curd, and it is beaten with sugar. A mix of cut fruits is then added and served along with steaming-hot pongal," he explains. The restaurant is also introducing tomato uthappam and apple bajji as part of its _____ E _____ (renewed) focus on traditional offerings. These new dishes make us wonder what Matsya might have looked like when it first began.

21. **Choose the most appropriate synonym for the word in (A): (prompting).**
- A. stymieing
 - B. quelling
 - C. impelling
 - D. thwarting
22. **Fill in blank (B) with the correct preposition to complete the phrase.**
- A. towards
 - B. into
 - C. under
 - D. in
23. **Fill in blank (C) with the most appropriate verb form to complete the subjunctive clause.**
- A. trying
 - B. tries
 - C. try
 - D. tried
24. **Choose the most appropriate synonym for the word in (D): (relishing).**
- A. execrating
 - B. deprecating
 - C. abominating
 - D. savoring
25. **Choose the antonym of the word in (E): (renewed).**
- A. renascent
 - B. flagging
 - C. galvanised
 - D. burgeoning

Answers

1. B 2. C 3.C 4. B 5. A 6. B 7. B 8. B 9. A 10. B 11.B 12.B
 13. A 14.C 15.A 16.B 17.C 18.B 19.A 20.A 21.C 22.B 23.C 24.D
 25. B

[\[Practice Exercise\]](#)

Explanations

1. B) **It operates through a different mode of action while remaining effective against pink bollworm.**

Passage: “While derived from the same soil bacterium as the Cry1Ac and Cry2Ab genes present in the ‘approved’ Bt hybrids, it has a different mode of action that is effective even against the pink bollworm.”----The passage says Vip3A works in a different way from the older Cry genes, and this different way works even against the pink bollworm. Option B says exactly this.

- Option A is incorrect because the option says Vip3A comes from a completely different species of bacteria, but the passage says it is derived from the same soil bacterium as the Cry1Ac and Cry2Ab genes.
- Option C is incorrect because the option says it has been cleared for experimental field trials, but the passage says nothing about trials being cleared. It only says the trait has not been officially authorised for commercial cultivation, and that the government has blocked field trials of GM crops.
- Option D is incorrect because the option says Vip3A gives resistance to both weedkillers and pink bollworm, but the passage treats them as two separate traits. Glyphosate tolerance is the herbicide trait, and Vip3A is the Bt gene for insect control.

2. C) **Farmers are deprived of advanced GM traits incorporated into genuine, research-backed seed hybrids.**

Passage: “A bigger loser is the farmer, who is being denied the benefits of deployment of the advanced GM traits in the hybrids of genuine research-backed seed companies, as opposed to fly-by-night operators.”----The passage says the seed industry loses sales, but the farmer loses even more. The reason given is that farmers cannot get the advanced GM traits from trusted, research-backed companies. Instead, they have to depend on unreliable, illegal sellers. Option 3 says exactly this.

- Option A is incorrect because the option says farmers bear legal liability for buying illegal seeds, but the passage does not mention any legal punishment for farmers. It says the blame “lies solely with the government.”
- Option B is incorrect because the option says cotton yields have totally collapsed in all sixteen districts, but the passage says the 16 districts are only where seed and leaf samples were collected. It says nothing about yields collapsing.
- Option D is incorrect because the option says farmers pay higher prices to illegal traders than to genuine companies, but the passage never compares seed prices. The farmer’s loss is about missing out on better, genuine traits, not about price.

3. C) **Doctrinal**

Empirical means based on, concerned with, or verifiable by observation, experience, or practical data rather than theory or pure logic.

Doctrinal means based on a predefined doctrine, dogma, or a set of theoretical principles and beliefs rather than practical observation. So it is the opposite of “empirical.”

- Option A is incorrect because the option says “automatic” (happening on its own, without thought), but the passage word is about being based on evidence versus beliefs.
- Option B is incorrect because the option says “rigorous” (strict and careful), so this is closer to a match than an opposite.
- Option D is incorrect because the option says “systematic” (done in an organised, step-by-step way), empirical science is also systematic. These words go together, so this is not an opposite.

4. B) Farmer demand for advanced GM traits versus rigid ideological policy barriers.

Passage: “The blame for this — widespread farmer demand-led, yet unregulated adoption of advanced GM technology — lies solely with the government. By blocking commercialisation and field trials of GM crops, based more on ideological positions than empirical regulatory science, it has turned India from a leading producer and exporter to a net importer of cotton.” ---- Farmers want HT and Bt traits because of high weeding costs and pink bollworm attacks. But the government blocks approval and field trials, and the passage says this is based on ideological positions. Because of this blockage, farmers buy illegal seeds, legal seed sales fall, and India has become a net importer of cotton. So the main problem is farmer demand on one side and the government’s ideological barriers on the other. Option B says this.

- Incorrect. The option says the problem is labour shortage versus rising weedkiller costs, but the passage says glyphosate is far cheaper (Rs 750-850) than manual weeding (Rs 12,000-15,000). Weedkiller costs are not described as rising.
- Incorrect. The option says the problem is research investment versus price wars among local traders, but the passage never mentions price wars. It only says legal seed sales have fallen as unauthorised seeds have grown.
- Incorrect. The option says the problem is genetic stability versus contamination by soil bacteria, but the passage says the Bt genes come from a soil bacterium by design. It does not describe any contamination problem.

5. A) Legal sales fell to 46.3 million packets while illegal sales reached 8.2–8.8 million.

Passage: “Sales of ‘legal’ Bt cotton hybrid seeds have fallen from 59.6 million to 46.3 million packets between 2022-23 and 2025-26. This, even as the unauthorised HT-Bt seed market has grown to an estimated 8.2-8.8 million packets.” ----The passage gives two facts. First, legal Bt seed sales dropped from 59.6 million to 46.3 million packets. Second, the unauthorised HT-Bt seed market grew to about 8.2-8.8 million packets. Option A states both facts correctly.

- a. B) Incorrect. The option swaps the numbers. The passage says legal sales are at 46.3 million, not 8.2-8.8 million, and illegal sales are 8.2-8.8 million, not 46.3 million.
- b. C) Incorrect. The option says unauthorised seeds took more than half of the 59.6 million packets, but the passage says the unauthorised market is only about 8.2-8.8 million packets, far below half.
- c. D) Incorrect. The option says legal sales fell by a quarter across sixteen districts, but the passage gives a fall from 59.6 to 46.3 million (about 22%), and the sixteen districts are

only where samples were collected, not where sales were measured. The “quarter” figure in the passage refers to the share of cotton area under unapproved GM hybrids.

6. B) 4-2-1-3

Explanation:

Hindi Explanation:

- Sentence 4 paragraph की शुरुआत करेगा क्योंकि यह standalone introductory sentence है। यह बिना किसी prior context के Chef Vamshi Krishna Adi और Charlotte, North Carolina में उनके नए fine-dining restaurant का पूरा introduction देता है।
- Sentence 2 Sentence 4 को follow करेगा क्योंकि यह सीधे उस restaurant का नाम—Zamindar’s Clubhouse—सामने लाता है और उसकी theme व style को describe करता है कि यह bold और sophisticated है।
- Sentence 1 Sentence 2 के बाद आएगा क्योंकि यह Chef Vamshi के background (New York City के अनुभव) और उनकी vision को explain करता है कि वे देश के ऐसे हिस्सों में Indian food की परिभाषा बदलना चाहते हैं जहाँ इसे अभी भी केवल साधारण करी समझा जाता है।
- Sentence 3 Sentence 1 को follow करेगा और paragraph को end करेगा। Chef और उनके culinary vision के पूरे context के बाद Sentence 3 interview के personal setting पर आकर बात खत्म करता है—“On an early morning call, we discuss food, family and spices.”

English Explanation:

- Sentence 4 serves as the standalone introductory sentence, providing complete baseline context by introducing Chef Vamshi Krishna Adi and his new fine-dining venture located in Charlotte, North Carolina.
- Sentence 2 follows Sentence 4 directly by identifying the restaurant by name—Zamindar’s Clubhouse—and defining its ambition to offer the city a bold and sophisticated dining experience.
- Sentence 1 follows Sentence 2 by tracing Chef Vamshi's culinary trajectory from New York City to newer markets, contrasting generic perceptions of Indian curry with elevated gourmet dishes like plated farm-raised venison shoulder.
- Sentence 3 follows Sentence 1 as the concluding line, shifting from the biographical and culinary context to the journalistic setting of the interaction: an early morning phone conversation covering food, family, and spices.

7. B) B D A C

Explanation:

Hindi Explanation:

- Sentence B opening sentence के तुरंत बाद आएगा क्योंकि lead sentence जोनाथन को सेंट हेलेना में रहने वाले Aldabra giant tortoise के रूप में introduce करता है, और Sentence B सीधे उसी subject की profile को आगे बढ़ाते हुए उसकी age (194 years old) और species के lifespan से तुलना बताता है—“He is 194 years old, the oldest living land animal on Earth today...”।
- Sentence D Sentence B को follow करेगा क्योंकि Sentence B में उसकी असामान्य उम्र स्थापित होने के बाद Sentence D बताता है कि इस असाधारण longevity ने वैज्ञानिकों को हैरान कर रखा था, लेकिन अब Science Advances में प्रकाशित एक study ने इस mystery को सुलझाया है।

- Sentence A Sentence D के बाद आएगा क्योंकि यह study के central biological finding को पेश करता है कि जोनाथन को youthful बनाए रखने में सिर्फ "good genes" नहीं बल्कि उसका "epigenome" जिम्मेदार है।
- Sentence C Sentence A को follow करेगा और paragraph को end करेगा। Sentence A में genes और epigenome का उल्लेख होने के बाद, Sentence C विस्तृत technical data देता है कि researchers ने genome और epigenome की जांच में 287 unique gene variants पाए जो DNA repair, inflammation और cancer suppression को control करते हैं।

English Explanation:

- Sentence B directly follows the introductory sentence by elaborating on Jonathan's vital statistics, noting that at 194 years of age, he is the oldest living terrestrial animal and far exceeds his species' typical upper lifespan limit.
 - Sentence D follows Sentence B by addressing the scientific curiosity surrounding his extreme age, stating that this enigma has finally been investigated in a study published in Science Advances.
 - Sentence A follows Sentence D by presenting the core hypothesis revealed by the study: Jonathan's youthful condition stems not just from "good genes" but crucially from his "epigenome."
 - Sentence C follows Sentence A to conclude the paragraph with specific empirical findings, explaining that the genomic and epigenomic analysis uncovered 287 unique variants responsible for DNA repair, anti-inflammation, and cancer suppression
8. B) **Temptation** (noun) – lure, appeal, enticement, urge, inclination. (प्रलोभन)
Synonym: **Enticement** (noun) – something that attracts or tempts, though often with risk; lure, temptation. (आकर्षण / प्रलोभन)
- **Chagrin** (noun) – annoyance, irritation, displeasure, vexation. (चिढ़ / क्षोभ)
 - **Rancour** (noun) – bitterness, spite, hostility, malice, resentment. (विद्वेष / कटुता)
 - **Equilibrium** (noun) – balance, stability, symmetry, parity. (संतुलन)
9. A) **Overshoot** (verb) – exceed, surpass, transcend, outstrip. (पार कर जाना)
Synonym: **Outstrip** (verb) – to go faster or further than something else; exceed. (आगे निकलना / पार कर जाना)
- **Recalibrate** (verb) – readjust, reevaluate. (फिर से जांचना)
 - **Recede** (verb) – gradually diminish, move back. (कम होना)
 - **Obscure** (verb) – hide, conceal, mask. (छिपाना)
10. B) Burn **bridges** (idiom) – Destroy opportunities (to damage relationships so that one cannot return) संबंध/अवसर हमेशा के लिए खत्म कर देना
11. B) Blow **one's own trumpet** (idiom) – Boast (to praise oneself) अपने मुँह मियाँ मिट्टू बनना
12. B) **Nudge** (noun) – push, prod, encouragement, prompt. (हल्का धक्का / प्रोत्साहन)
Antonym: **Deterrence** (noun) – the action of discouraging an action or event through instilling doubt or fear. (अवरोध / निवारण / हतोत्साहन)
- **Impulse** (noun) – a sudden strong and unreflective urge to act. (आवेग)
 - **Sophistication** (noun) – the quality of being sophisticated; complexity. (परिष्कृति)
 - **Dexterity** (noun) – skill in performing tasks, especially with the hands. (निपुणता)

13. A) **Dampen** (verb) – suppress, reduce, lessen, diminish, stifle. (कम करना / हतोत्साहित करना)
Antonym: **Strengthen** (verb) – make or become stronger; reinforce. (मजबूत करना / बढ़ाना)
- **Vanish** (verb) – disappear, fade, evaporate. (गायब होना)
 - **Eclipse** (verb) – overshadow, outshine, surpass. (ग्रहण लगाना / छोटा करना)
 - **Foster** (verb) – encourage, promote, nurture. (बढ़ावा देना)
14. C) **Amnesty** (noun) – An official pardon for offenders, especially for political offences सरकारी माफी / आम माफी
- **Reprieve** (noun) – a temporary delay or cancellation of punishment अस्थायी राहत
 - **Absolution** (noun) – formal forgiveness of sins or wrongdoing क्षमादान
 - **Clemency** (noun) – mercy shown by someone in authority दया / रहम
15. A) **Fratricide** (noun) – The act of killing one's brother भ्रातृहत्या / भाई की हत्या
- **Suicide** (noun) – the act of killing oneself आत्महत्या
 - **Patricide** (noun) – the act of killing one's father पितृहत्या
 - **Homicide** (noun) – the act of killing another person मानव हत्या
16. B) The correctly spelled word is Opprobrium (Option B).
It is spelled with a double p, single b, and ends with -ium: O-p-p-r-o-b-r-i-u-m.
- **Opprobrium** (noun) – harsh criticism, censure, contempt, disgrace, or infamy arising from shameful conduct. (अपमान / बदनामी / घोर निंदा)
17. C) The correct spelling is Enthusiasm (Option c). **E-n-t-h-u-s-i-a-s-m**.
- a. Enthusiasm (noun) – intense and eager enjoyment, interest, or approval; zeal, passion, ardor, eagerness. (उत्साह / उमंग / जोश)
18. B) 'will be continued' के बदले 'will continue' का प्रयोग होगा क्योंकि Subject 'The bank' स्वयं ब्याज भेजने का कार्य करेगा, इसलिए Active Voice (will + V1) आएगा; 'will be continued' Passive है जो यहाँ अर्थ के अनुसार गलत है; जैसे— The company will continue to pay the salary.
- 'will continue' will be used instead of 'will be continued' because the subject 'The bank' itself performs the action, so the active form (will + V1) is needed; 'will be continued' is passive and wrong here; Like— The company will continue to pay the salary.
19. A) '**She has got cold and cough**' गलत है; सही वाक्य है 'She has got a cold and a cough.' क्योंकि कुछ बीमारियों जैसे cold, cough, headache, fever के साथ Article 'a' का प्रयोग होता है; जैसे— He has a headache. अन्य वाक्य सही हैं।
- 'She has got cold and cough' is incorrect; the correct sentence is 'She has got a cold and a cough', because ailments like cold, cough, headache and fever take the article 'a'; Like— He has a headache. The other sentences are correct.
20. A) 'a detailing explanation' के बदले '**a detailed explanation**' का प्रयोग होगा क्योंकि noun 'explanation' को describe करने के लिए Adjective 'detailed' (विस्तृत) आता है; 'detailing' verb का -ing रूप है जो यहाँ सही अर्थ नहीं देता; जैसे— He gave a detailed report.
- 'a detailed explanation' will be used instead of 'a detailing explanation' because the adjective 'detailed' is needed to describe the noun 'explanation'; 'detailing' is the -ing form of the verb and does not fit; Like— He gave a detailed report.
21. C) **impelling**

The passage describes the 76th anniversary serving as an inspiration or driving force that encourages the family to revisit their origins (the occasion is prompting the family...). The question asks for the most appropriate synonym for "prompting" (meaning causing, driving, or bringing about an action). a) stymieing: means preventing or hindering the progress of (antonym). b) quelling: means putting an end to or subduing. c) impelling: means driving, forcing, or urging someone to do something, serving as the direct synonym for "prompting." d) thwarting: means preventing someone from accomplishing a purpose (antonym).

- In Hindi: यह sentence 76वीं वर्षगांठ के अवसर द्वारा परिवार को अपनी जड़ों की ओर वापस देखने के लिए प्रेरित करने या विचार करने पर मजबूर करने ("prompting") को describe करता है। Question में "prompting" (प्रेरित करना/उकसाना) का सबसे सटीक synonym पूछा गया है। a) stymieing: इसका meaning बाधा डालना या रोकना होता है। b) quelling: इसका meaning शांत करना या दबाना होता है। c) impelling: इसका meaning 'प्रेरित करना, ढकेलना या बाध्य करना' (driving/urging) होता है, जो "prompting" के अर्थ से perfectly match करता है। d) thwarting: इसका meaning विफल करना या रोकना होता है।

22. B) into

The sentence describes the restaurant's intention to highlight or draw attention back to its traditional, heritage menu (bring its heritage menu back _____ focus). Blank (B) requires the correct preposition to complete the standard idiomatic expression. a) towards: indicates direction, but does not fit the idiom. b) into: forms the established English idiom "bring into focus" (meaning to make something clear, prominent, or the center of attention). c) under: denotes being below something. d) in: is not standardly used with "bring" and "focus" to denote drawing attention.

- In Hindi: यह sentence रेस्टोरेंट द्वारा अपने पारंपरिक (heritage) मेनू को वापस मुख्य आकर्षण या ध्यान के केंद्र में लाने को describe करता है। अंग्रेजी में 'किसी चीज़ को स्पष्ट करना या ध्यान के केंद्र में लाना' के लिए निश्चित मुहावरेदार अभिव्यक्ति "bring into focus" का प्रयोग किया जाता है। a) towards: यह की ओर दर्शाता है। b) into: यह मानक मुहावरे "bring into focus" को पूर्ण करता है, जो context में perfectly fit होता है। c) under: यह नीचे दर्शाता है। d) in: यह अंदर दर्शाता है, लेकिन मुहावरे में गलत है।

23. C) try

The sentence uses a formal noun clause following a verb of demand/urgency (insisting that we _____ their ven pongal). In formal English, verbs expressing commands, suggestions, or insistence (like insist, demand, recommend, suggest) trigger the subjunctive mood in the following "that"-clause. The subjunctive mood strictly requires the base/bare form of the verb (V1 without 's' or 'es'), regardless of the subject's tense or number. a) trying: is a participle. b) tries: is the singular indicative present form. c) try: is the base form of the verb, perfectly satisfying the subjunctive rule (insisting that we try). d) tried: is the past tense form.

- In Hindi: यह sentence राम द्वारा ज़ोर देकर (insisting) यह कहने को describe करता है कि उन्हें 'वेन पोंगल' चखना चाहिए। अंग्रेजी ग्रांमर के नियमानुसार जब वाक्य में insist, suggest, demand आदि शब्दों के बाद "that" clause आता है, तो वह Subjunctive mood में होता है। इसमें subject चाहे जो भी हो, हमेशा verb के base form (बिना s/es के V1) का use किया जाता है। a) trying: यह participle है। b) tries: यह present verb है। c) try: यह base form है जो subjunctive mood

के नियमानुसार "insisting that we try" में grammatically perfectly fit होता है। d) tried: यह past form है।

24. . D) **savoring**

The passage notes the author's initial reluctance about the fruit and pongal combination, which surprisingly ends with them greatly enjoying the dish (I end up relishing the rather unusual pairing). The question asks for the synonym of "relishing" (meaning enjoying greatly). a) execrating: means feeling or expressing great loathing for something (antonym). b) deprecating: means expressing disapproval of. c) abominating: means detesting or loathing (antonym). d) savoring: means completely enjoying and appreciating the taste or experience of something, serving as the direct synonym for "relishing."

- In Hindi: यह sentence लेखक द्वारा शुरुआत में संकोच के बाद अंततः पोंगल और फ्रूट पचड़ी के अनोखे संयोजन का बहुत आनंद लेने या स्वाद लेकर खाने ("relishing") को describe करता है। Question में "relishing" (मजे लेकर खाना/आनंद लेना) का सबसे सटीक synonym पूछा गया है। a) execrating: इसका meaning घृणा करना या कोसना होता है। b) deprecating: इसका meaning विरोध या असहमति जताना होता है। c) abominating: इसका meaning नफरत करना (antonym) होता है। d) savoring: इसका meaning 'स्वाद लेना या पूरा आनंद उठाना' (enjoying completely) होता है, जो "relishing" के अर्थ से perfectly match करता है।

25. B) **flagging**

The sentence describes the restaurant's fresh, invigorated, and revived attention on their traditional dishes (renewed focus on traditional offerings). The question asks for the antonym of "renewed" (meaning revived, re-established, or given fresh life/energy). a) reascent: means becoming active or popular again (synonym). b) flagging: means becoming weaker, tired, or less dynamic, serving as the direct antonym of "renewed." c) galvanised: means shocked or excited into taking action (synonym-leaning). d) burgeoning: means beginning to grow or increase rapidly.

- In Hindi: यह sentence रेस्टोरेंट द्वारा अपने पारंपरिक व्यंजनों पर एक नए सिरे से या पुनर्जीवित ("renewed") ध्यान केंद्रित करने को describe करता है। Question में "renewed" (नवीनीकृत/पुनर्जीवित/नई ऊर्जा से भरा) का direct antonym पूछा गया है। a) reascent: इसका meaning पुनर्जीवित या फिर से उभरने वाला (synonym) होता है। b) flagging: इसका meaning 'कमजोर पड़ता हुआ, ढीला पड़ता हुआ या ऊर्जाहीन' (becoming weaker) होता है, जो "renewed" का direct antonym है। c) galvanised: इसका meaning प्रेरित या ऊर्जावान होता है। d) burgeoning: इसका meaning तेज़ी से बढ़ता हुआ होता है।