

THE NOBEL PRIZES

A COMPREHENSIVE GS STUDY GUIDE FOR COMPETITIVE EXAMS

1. Historical Blueprint & Core Mechanics

The Nobel Prizes are a suite of annual international awards bestowed in several categories by Swedish and Norwegian institutions in recognition of academic, cultural, or scientific advances.

Background & Evolution

- **Founder:** Established by the 1895 will of **Alfred Nobel**, a Swedish chemist, engineer, and the inventor of dynamite.
- **The Catalyst:** Nobel was deeply concerned with how posterity would view him, reportedly motivated by an erroneously published premature obituary that labeled him the "Merchant of Death."
- **First Awarded: 1901** (Physics, Chemistry, Physiology or Medicine, Literature, and Peace).
- **The Economics Exception:** The *Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel* was established much later in **1968** by Sweden's central bank and first awarded in 1969. It is not technically an original Nobel Prize but follows the same selection protocol.

Key Institutional Bodies & Locations

The awards are split geographically and institutionally to maintain strict evaluation standards:

PRIZE CATEGORY	AWARDING INSTITUTION	LOCATION OF CEREMONY
Physics	Royal Swedish Academy of Sciences	Stockholm, Sweden
Chemistry	Royal Swedish Academy of Sciences	Stockholm, Sweden
Economic Sciences	Royal Swedish Academy of Sciences	Stockholm, Sweden
Physiology or Medicine	Nobel Assembly at the Karolinska Institute	Stockholm, Sweden
Literature	Swedish Academy	Stockholm, Sweden
Peace	Norwegian Nobel Committee	Oslo, Norway

Statutory Rule to Remember:

*A Nobel Prize **cannot be awarded posthumously** unless the recipient was named before their death but passed away prior to the ceremony (a rule solidified in 1974). No single prize can be shared by more than **three individuals**.*

2. Global Historic Milestones (Highly Relevant for GS MCQ Exams)

Exceptional Laureates & Record Breakers

- **Youngest Laureate:** Malala Yousafzai (Peace, 2014) at age 17.
- **Oldest Laureate:** John B. Goodenough (Chemistry, 2019) at age 97 for his pioneering work on Lithium-ion batteries.
- **Only Person to Win Two Unshared Nobels:** Linus Pauling (Chemistry, 1954 and Peace, 1962).

The Multiple-Time Winners

- **International Committee of the Red Cross (ICRC):** Awarded the Peace Prize three times (1917, 1944, 1963).
- **John Bardeen:** Physics (1956, 1972).
- **Marie Curie:** Physics (1903) and Chemistry (1911) — *The first woman to win, and the only person to win in two distinct science categories.*
- **Frederick Sanger:** Chemistry (1958, 1980).
- **K. Barry Sharpless:** Chemistry (2001, 2022).
- **UNHCR (Office of the UN High Commissioner for Refugees):** Peace (1954, 1981).

3. The Indian Connection (Statics & Dynamics)

Understanding Indian citizens, persons of Indian origin (PIO), or individuals with distinct Indian footprints who have won the prize is a frequent requirement in national exams.

Indian Citizens & Deeply Rooted Laureates

Rabindranath Tagore

LITERATURE (1913)

Significance: First non-European and first Asian to win a Nobel Prize. Awarded for his profoundly sensitive, fresh, and beautiful verse in **Gitanjali**.

Sir C.V. Raman

PHYSICS (1930)

Significance: Discovered the **Raman Effect** (the scattering of light when passing through a material). February 28, the day of the discovery, is celebrated annually as **National Science Day** in India.

Mother Teresa

PEACE (1979)

Significance: An Albanian-born Indian citizen who founded the Missionaries of Charity in Kolkata, recognized for her humanitarian work targeting poverty and distress.

Amartya Sen

ECONOMIC SCIENCES (1998)

Significance: Honored for his foundational contributions to **welfare economics** and development economics, specifically his work on poverty mechanisms, famines, and human development indices.

Kailash Satyarthi

PEACE (2014)

Significance: Shared the prize with Malala Yousafzai for his relentless global activism against child labor and exploitation through his organization, **Bachpan Bachao Andolan**.

Overseas Citizens of India (OCI) / Persons of Indian Origin (PIO)

- **Har Gobind Khorana** (Medicine, 1968): Shared the prize for interpreting the genetic code and its function in protein synthesis.
- **Subrahmanyam Chandrasekhar** (Physics, 1983): Discovered the **Chandrasekhar Limit**, proving the maximum mass limit of a stable white dwarf star.
- **Venkatraman Ramakrishnan** (Chemistry, 2009): Mapped the structure and function of the ribosome.
- **Abhijit Banerjee** (Economic Sciences, 2019): Shared the award for an experimental approach to alleviating global poverty using Randomized Controlled Trials (RCTs).

4. Analytical GS Trend Analysis

When preparing for analytical mains or high-level descriptive papers, keep these structural issues in mind:

1. **The Geopolitical & Gender Imbalance:** Historically, the Nobel Prizes face criticism for a heavy Western (Eurocentric/North American) bias. Out of more than 1,000 individuals awarded, fewer than 70 have been women, though this ratio has steadily improved over the past two decades.
2. **Scientific Collaboration vs. Individual Rules:** The "Rule of Three" limits a single prize to three individuals. Modern science, however, relies heavily on massive international collaborations (e.g., the detection of Gravitational Waves or the Higgs Boson), leaving major institutions or hundreds of researchers excluded in favor of select leaders.

3. **The Peace Prize Subjectivity:** The Peace Prize has historically generated the most geopolitical controversy, often reflecting the contemporary political alignments of the Norwegian Parliament-appointed committee rather than consensus history.