

Death of Prasanta Chandra Mahalanobis: This Day in History – Jun 28

Pioneer Indian statistician Prasanta Chandra Mahalanobis died on 28 June 1972 in Calcutta aged 78. He contributed vastly to the design of large-scale sample surveys in India. He is also best remembered for the Mahalanobis distance, a statistical measure, and for being one of the members of the first Planning Commission of free India. Read on about his life and contributions for the IAS exam.

Biography of P C Mahalanobis

- Mahalanobis was born to a wealthy Bengali family in Calcutta on 29th June 1893. His family members were actively involved in the Brahmo Samaj movement.
- After finishing his schooling in Calcutta, he joined the Presidency College from where he received a Bachelor's Degree in Physics. His teachers there included eminent scientists like Jagadish Chandra Bose and Prafulla Chandra Ray.
- In 1913, he left for England to pursue higher education. Although he set out to study at the University of London, a missed train led him to join the King's College, Cambridge.
- There, he completed his Tripos in physics. A chance reading of the journal *Biometrika*, which focused on theoretical statistics, intrigued his interest in the subject of statistics. He brought the entire volume of the journal back to India and began studying it. He then discovered the efficacy of statistics in solving problems in anthropology and meteorology.
- In the 1920s, he established a Statistical Laboratory in the Presidency College where he taught Physics. He established the **Indian Statistical Institute** in Calcutta on 17th December 1931, with help from a few colleagues and friends.
- In 1959, the institute was declared a deemed university and an 'institute of national importance'.
- Mahalanobis contributed towards the field of statistics through his research and findings. He is remembered mostly for the **Mahalanobis Distance**, which is denoted as D^2 . D^2 is a multivariate distance measure which is used for comparing and grouping populations.
- He also invented an instrument used for measuring skull measurements known as a profiloscope. He contributed towards the subject of physical anthropology as well.
- But his greatest contribution lay in the field of **large-scale sample surveys**. Mahalanobis initiated the concept of pilot surveys. The technique of random sampling introduced by him has been regarded as the most accurate in the world. His research also improved the estimation of crop yields.
- He also was an important member of the Planning Commission starting from the Second Five Year Plan. Mahalanobis and Russian Grigory Feldman independently developed a

neo-Marxian economic development model, now known as the Feldman–Mahalanobis model.

- The Mahalanobis Model was used in the Second Five Year Plan.
- Mahalanobis has also acted as a secretary to Rabindranath Tagore.

Awards and Honours

- He was the recipient of several awards like the Order of the British Empire (1924), Weldon Memorial Prize (1944, Oxford University), Fellow of the Royal Society, London (1945), Fellow of the Econometric Society, USA (1951), Foreign member of the Academy of Sciences of the USSR (1958), Honorary Fellow of the Royal Statistical Society, UK (1954), Honorary Fellow of King's College, Cambridge (1959), Srinivasa Ramanujan Gold Medal (1968), Fellow of the American Statistical Association (1961), Durgaprasad Khaitan Gold Medal (1961), and the Padma Vibhushan (1968).
- In 2006, the Indian government decided to observe his birth anniversary of 29th June as '**National Statistical Day**'.