Frequently Asked Questions

1. Write the main creations of P C Mahalanobis.

Answer:

Both the apex statistical bodies of independent India, the Central Statistical Organization (CSO) and the National Sample Survey (NSS) and the State Statistical Bureaus are the creations of Mahalanobis.

2. Give the family background of P C Mahalanobis.

Answer:

Mahalanobis belonged to a family of Bengali landed gentry who lived in Bikrampur (now in Bangladesh). His grandfather Gurucharan (1833–1916) moved to Calcutta in 1854 and built up a business, starting a chemist shop in 1860. Gurucharan married a widow against social traditions. His elder son Subodhchandra (1867–1954) was the father of P. C. Mahalanobis.

3. Write the Fisher's comment on work done by P C Mahalanobis at ISI.

Answer:

On the work done at the ISI, Fisher remarked: "...The ISI has taken the lead in the original development of the technique of Sample Surveys, the most potential fact finding process available to the administration".

4. What did C R Rao tell about Mahalanobis?

Answer:

According to C R Rao, "the fame of Mahalanobis as a scientist will rest largely on his contributions to statistics. He viewed Statistics, or more generally collection and processing of information, as essential in seeking truth".

5. Which work of Mahalanobis is widely acknowledged by world?

Answer:

Mahalanobis innovative techniques and methodology for large scale sample surveys are widely acknowledged throughout the world.

6. Write the work of Mahalanobis during early period of 1987-45.

Answer

During the early period 1937-45, Mahalanobis introduced several innovative ideas and methodologies in what he called as 'experiments in statistical sampling'. He mainly dealt with the problems of organization which arise when a sample survey has to be carried out on a very large scale.

7. Write importance of pilot survey.

Answer:

Pilot surveys' played an important role in determination of sample size as well as for testing the schedules and field conditions, estimating the time and cost for survey and the variability.

8. Who introduced PPS sampling?

Answer:

The mathematical theory for Probability Proportional to Size Sampling (PPS) method was given by Hansen and Hurwitz in 1943.

9. Write the work of Mahalanobis in collaboration with D B Lihiri.

Answer:
Mahalanobis in collaboration with D B Lahiri of the NSS presented a detailed analysis of errors in censuses and surveys in the Indian context.

10. Which are the three notable contributions to sample survey methodology by Mahalanobis, has great impact on present day sampling technique?

Answer:
The three notable contributions to sample survey methodology by Mahalanobis, namely 'pilot surveys, concept of optimum survey design, and inter penetrating network of subsamples (IPNS)' had a great impact on the present day sampling techniques in particular and statistical methods in general.

11. Write the impact of pilot surveys.

Answer:
Pilot surveys are acknowledged as a prelude to Abraham Wald's 'sequential analysis' which relates to decision making sequentially.

12. What is the impact of 'concept of optimum survey design?

Answer:
Since we need to draw 10 bivariate random samples, let us consider 20 random 'Optimum survey design' stresses the Mahalanobisian philosophy that all the resources provided for a survey should be used optimally going beyond the mathematical propositions such as 'sampling error should be minimized for a fixed cost', or 'cost should be minimized for a fixed sampling error'. This can be considered to be a precursor to the present day 'operations research' philosophy.

13. Write the impact of IPNS technique.

Answer:
The IPNS technique, while being a tool for assessing and controlling the non-sampling errors in the survey, also 'permits evaluation of variances between investigators, coders and other workers in the various stages of processing'. Thus IPNS technique could be considered really as the curtain-raiser for 're-sampling procedures'

14. What is the single aim statistics has according Mahalanobis.

Answer:
Mahalanobis believed that the ultimate analysis of statistics has one single aim: '*to improve the efficiency of action programmes for the welfare of humanity*'.

15. How Government of India did gave the recognition to the work towards human welfare by Mahalanobis?

Answer:
On the occasion of the birth centenary of Mahalanobis in 1993, the Government of India released a postage stamp bearing his picture and the Institute he founded in a fitting recognition to his fundamental contributions to statistics towards human welfare and national development.