SERIES ARTICLES

04 Mathematics in Ancient India
An Overview
Amartya Kumar Dutta

20 Glial Cells: The Other Cells of the Nervous System
Astrocytes – Star Performers in the Neural Tissues
Medha S Rajadhyaksha and Daya Manghani

GENERAL ARTICLES

27 Bayesian Statistics
The Theory of Inverse Probability
Mohan Delampady and T Krishnan

39 Fractals and the Large-Scale Structure in the Universe
Is the Cosmological Principle Valid?
A K Mittal and T R Seshadri

48 Aerosols and Climate
S K Satheesh

60 Operating Systems
Functions, Protection and Security Mechanisms
M Suresh Babu

67 Existence of a New Force in Colloidal Systems – Hydrophobic Attraction Between Macroscopic Surfaces
B Sudhir and Sanjeev Kumar
82 S S Bhatnagar: Life and Times
Rajesh Kochhar

90 Shanti Swarup Bhatnagar – A Visionary Extraordinary
S Sivaram

From the Bakshali Manuscript. This manuscript was unearthed in 1881 by a farmer in Bakhshali, a village about 80 kms to the north-east of Peshawar. It contains an exposition of basic arithmetic, extraction square-roots and cube-roots, arithmetic with fractions and practical problems of everyday commerce. It is written in a corrupt form of Sanskrit in Sarada script on Bhurjapatra (Birch-bark). A very good reference is 'The Bakhshali Manuscript', Takao Hayashi, Egbert Forsten, Groningen, 1995.

(Colour scheme for cover by Jayant Rao)

Shanti Swarup Bhatnagar
(1894 – 1955)