Questions: Lectures 3 and 4

Amba Kulkarni

Fellow IIAS, Shimla

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Exercise-1

* indicates level of difficulty

- (*) What is a sūtra?
- (*) Name any 4 sūtra style works in Ancient India.
- (*) Name the 6 Vedaṇgas explaining in brief what is each about.
- (**) Distinguish between Iteration and Recursion with an example.
- (*) List the 6 pratyayas described in Chandasśāstra.

Exercise-2

- (*) What is a De Bruijn cycle?
- (**) Give a De Bruijn cycle for a length of 2 for binary alphabet.
- (**) Explain why yamātārājabhānasalagam is a De Bruijn cycle of length 8.
- (**) Give an alternative sequence of length 3 of binary alphabet that is a De Bruijn cycle.
- (*) How many cycles of length n of binary alphabet are possible?

Exercise-3

- (*) How many types of Meters are there? What are they?
- (*) What is a Laghu and Guru akṣara?
- (**) Classify each akṣara in the following śloka into laghu and guru.
  प्रत्यादिष्टं समरशिरसः कान्दिशीभूयनष्टं
- (**) Tell the position of this laghu-guru sequence in the previous śloka in the prastāra of 17 akṣaras.
- (**) Which gaṇas (triplets of laghu-guru viz. ya,ma,ta,ra,ja,bha,na,sa) are used in the above Chandas?