Questions: Lectures 1 and 2

Amba Kulkarni

Fellow IIAS, Shimla

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Exercise

* indicates level of difficulty

- (*) What are the characteristic features of an Algorithm?
- (**) Give an example of step-by-step instructions in day-to-day life that is not an algorithm.
- (***) Write an algorithm to add first n natural numbers sequentially, adding one number at a time.

Exercise

- (*) Name the four Vedas, and the sections each of them consists of.
- (*) What are Prakṛti and Vikṛti styles of Vedic recitation?
- (**) Write all the 10 recitations for the Gayatri mantra, given the padapāṭha. (Ignore the accents for this exercise)
  ॐ भूः भव स्वः तत् सवितुः वरेण्यम् भर्गो देवस्य धीमहि धियो यो न प्रचोदयात्
- (****) Write a programme that generates all 10 ways of recitations of a mantra, given the pada-pāṭha of a Vedic mantra. (Ignore the accents for this exercise)
- (*) Write a note on Vedic recitation.
- (*) What are error correcting and error detecting codes?
- (*****) Can you justify that different ways of Vedic recitations are for error-correction/detection? Illustrate with an example.