

# (L) Shiva Sutras (1/4) [5 Points]

The following 14-line poem is one of the four sections of a grammar of Sanskrit, an ancient Indian language, written by the 4<sup>th</sup>-century BCE Indian grammarian Pāṇini. It is called the *Akṣarasamāmnāya* or *Śivasūtras*, and it functions as an ordering of the sounds of the Sanskrit language<sup>1</sup> – like the English “A, B, C...” with some special properties.

1.	<i>a</i>	<i>i</i>	<i>u</i>			<i>Ṇ</i>
2.				<i>ṛ</i>	<i>ḷ</i>	<i>K</i>
3.		<i>e</i>	<i>o</i>			<i>ṅ</i>
4.		<i>ai</i>	<i>au</i>			<i>C</i>
5.	<i>h</i>	<i>y</i>	<i>v</i>	<i>r</i>		<i>Ṭ</i>
6.					<i>l</i>	<i>Ṇ</i>
7.	<i>ñ</i>	<i>m</i>	<i>n̄</i>	<i>ṇ</i>	<i>n</i>	<i>M</i>
8.	<i>jh</i>	<i>bh</i>				<i>ṅ</i>
9.			<i>gh</i>	<i>ḍh</i>	<i>dh</i>	<i>Ṣ</i>
10.	<i>j</i>	<i>b</i>	<i>g</i>	<i>ḍ</i>	<i>d</i>	<i>Ś</i>
11.	<i>kh</i>	<i>ph</i>	<i>ch</i>	<i>ṭh</i>	<i>th</i>	
			<i>c</i>	<i>ṭ</i>	<i>t</i>	<i>V</i>
12.	<i>k</i>	<i>p</i>				<i>Y</i>
13.		<i>ś</i>	<i>ṣ</i>	<i>s</i>		<i>R</i>
14.	<i>h</i>					<i>L</i>

**NOTE:** *ṛ* and *ḷ* are vowels; *ñ, n̄, ṇ, ḍ, ṭ, ś, and ṣ* are consonants. A consonant with a letter *h* after it (e.g. *jh*) is considered a separate ‘sound’ from the consonant without the *h* (e.g. *j*). The vowels *a i u* each have a long counterpart, *ā ī ū*, which for purposes of the *Śivasūtras* is considered equivalent with the short form.

The organization of the *Śivasūtras* allows us to give names to certain groups of sounds. For example, the single syllable *aC* refers to the vowels (*a i u ṛ ḷ e o ai au*). Similarly, *haL* refers to the consonants (all the sounds that are not vowels), and *yaṆ* refers to a specific class of consonants (*y v r l*). Each of these single-syllable words (and the group of sounds that it describes) is known as a *pratyāhāra*.

**L1.** To what do the following *pratyāhāras* refer? List the sounds:

...iK?

...haṆ?

...khaY?

<sup>1</sup> An ancient Indo-European language of India from which many northern Indian languages are derived



## (L) Shiva Sutras (2/4)

L2. Give the *pratyāhāras* for the following classes.

(i) ...*ñ m ñ ṅ n* (nasal consonants)

(ii) ...*ai au* (diphthongs)

(iii) ...all sounds

L3. Explain how to form a *pratyāhāra*.

You may have noticed that, in English, the same thing can be pronounced differently in different contexts. For example, the words *a* and *an* mean the same thing, but we use *a* before consonants and *an* before vowels. Such rules can often be described as a substitution operation performed under a specified set of conditions, such as “substitute *an* for *a* before a vowel.”

An advantage of the *pratyāhāras* is that they can be used to efficiently describe such sound change processes, which often operate on the types of sound groupings that can be expressed as *pratyāhāras*.<sup>2</sup> Approximately 4,000 rules describing the sound change processes of Sanskrit are laid out in another section of Pāṇini’s grammar, known as the *Aṣṭādhyāyī*.

Here is an example of a rule from the *Aṣṭādhyāyī*:

**6.1.77** *iKaḥ yaṅ aCi*

This rule contains three *pratyāhāras*: *iK*, *yaṅ*, and *aC*, which you have already seen in the previous part of this problem. Each of these *pratyāhāras* is followed by an ending (the ending may be empty, in which case it is marked by the symbol  $\emptyset$ ):

**6.1.77** *iK-aḥ yaṅ- $\emptyset$ aC-i*

<sup>2</sup> In technical linguistic terminology, groups of sounds that have meaningful linguistic roles, such as the set of consonants or the set of vowels, are known as natural classes; *pratyāhāras* are generally natural classes.



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Here are a few of the changes triggered by this rule 6.1.77; the underlying form is the form before the rule has been applied, while the written form is the result of applying the rule:

<u>Underlying form</u>	<u>Written form</u>	<u>Translation</u>
<i>muniāśrama</i>	<i>munyāśrama</i>	'the sages' hermitage'
<i>devīeva</i>	<i>devyeva</i>	'the goddess herself'
<i>madhuiva</i>	<i>madhviva</i>	'like honey'
<i>pitraśva</i>	<i>pitraśva</i>	'the father's horse'

However, the following forms are not affected by rule 6.1.77 (although they may be affected by other rules):

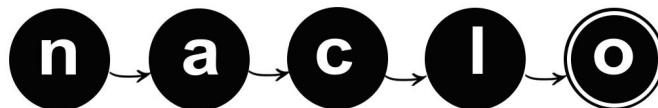
<u>Underlying form</u>	<u>Translation</u>
<i>munitapas</i>	'the sages' asceticism'
<i>kanyāeva</i>	'the girl herself'
<i>dhenusiva</i>	'like a cow'
<i>kimcit</i>	'something'

In everyday contexts in Sanskrit, the endings seen above (-aḥ, -ø, -i) are used to mark the role of a noun in a sentence. For example, from the noun *manas* 'mind' the following forms are derived:

<u>Form</u>	<u>Translation</u>	<u>Role in the sentence</u>
<i>manas-ø</i>	'the mind (does, is, etc.)'	subject
<i>manas-aḥ</i>	'of the mind'	possessor
<i>manas-i</i>	'on the mind'	location

However, within the *Aṣṭādhyāyī* these endings have a slightly different meaning.

**L4.** Express in your own words the meaning of rule 6.1.77.



## (L) Shiva Sutras (4/4)

L5. How would you translate the meaning of the following endings as they are used in the *Aṣṭādhyāyī*?

(i) ...-aḥ?

(ii) ...-ø?

(iii) ...-i?

L6. The following is a simplified version of rule 8.4.53 of the *Aṣṭādhyāyī*: *jhaLaḥ jaŚ jhaŚi*. For each of the following underlying forms, write the corresponding written form; if the form is unaffected, write “no change.”

(i) *jagatdhana* ‘the wealth of the universe’

(ii) *tatduḥkha* ‘that sorrow’

(iii) *bhrātrnāman* ‘brother’s name’

Note that the designations of the rules (6.1.77, 8.4.53) refer to book, chapter, and line numbers of the *Aṣṭādhyāyī*.

