Chapter 5
5.1 Introduction

A Hindi sentence consists of either noun phrases, optional adverb phrases and a verb phrase, or more than one such sentences joined by conjunctions. The noun phrases and the adverb phrases appear in arbitrary order and are followed by a verb phrase. The grammatical relations subject, object and indirect object, subject complement, object complement are realized by these noun phrases. Grammatical relations other than those subject, object etc. are realized by adverb phrase. The presence of these noun phrases is controlled by the type of the verb. An intransitive verb takes only a subject. A transitive verb takes a subject and an object. A ditransitive verb takes a subject, an object and an indirect object. Some verbs take sentence as a complement [22,28].

The rules to describe the structure of a Hindi sentence are formed on the basis of the concept of grammatical relations. Rules for almost all kinds of constructions have been formed. In the successive sections, detailed description of rules for simple, compound and complex sentences have been given.

5.2 Simple Sentence

A simple sentence consists of noun phrases, optional adverb phrases and a verb phrase. This section describes rules for simple sentences. In the rules symbols S and S1 denote sentence. Symbols ADVP, IOBJ, IOBJP, NP, OBJ, OBJ_COMP, OBJP, SUBJ, SUBJ_COMP, SUBJP, V_COMP and VP denote adverb phrase, indirect object, indirect object postposition (parsarg), noun phrase, object, object complement, object postposition, subject, subject complement, subject postposition, verb complement and verb phrase, respectively. Symbols such as GFS1 and GFS2 etc. denote the specific sequence of phrases but have no grammatical significance. These symbols have only
computational value [29].

The grammar rules proposed to describe the structure of a simple sentence are:

1. \( S \rightarrow ADVP(\wedge = !) \ S1(\wedge = !) \mid S1(\wedge = !) \)

   This rule states that in a simple sentence adverb phrase is the first phrase. The examples adhering to this rule are:
   (i) \( kal \) sudheer beemaar thaa.
   (ii) \( aaj \) somvaar hai.

2. \( S1 \rightarrow SUBJ(\wedge = !) \ AD_VP \ (\neg(! \text{mood}) \ (\wedge \text{subj} \text{pars} =_{cd} \phi) \ (\neg \text{gen} =_{ci} \text{mas}) \)

   \((\neg \text{num} =_{ci} \text{sing}) \ (\neg \text{per} =_{ci} \text{third}) \ (\wedge = !) \)

   OR

   \((\neg(! \text{mood})) \ (\wedge \text{subj} \text{pars} =_{cd} \phi) \ (\neg \text{subj gen} =_{cd} \text{gen}) \)

   \((\neg \text{subj num} =_{cd} \neg \text{num}) \ (\neg \text{subj per} =_{cd} \neg \text{per}) \ (\wedge = !) \)

   OR

   \((\neg(! \text{mood})) \ (\wedge \text{subj} \text{pars} =_{cd} \phi) \)

   \((\neg \text{subj num} =_{cd} \neg \text{num}) \ (\neg \text{subj per} =_{cd} \neg \text{per}) \ (\wedge = !) \)

   In this rule \( AD_VP \) is either a verb phrase or an adverb phrase followed by a verb phrase. The rule states that a simple sentence is either a sequence of subject, adverb phrase, and an intransitive verb, or a subject followed by a verb phrase. The examples adhering to this rule are:
   (i) sudheer ne aath saal pahale shaadee kar lee.
   (ii) laRakiyon ne shaadee kar lee.
   (iii) sudheer agale saal shimalaa jaayegaa.
   (iv) laRakiyaan shimalaa jaayengee.
   (v) sudheer jaldee so jaaye.
   (vi) reetaa so jaaye.

3. \( S1 \rightarrow GFS2(\wedge = !) \ AD_VP \ (\neg(! \text{mood}) \ (\wedge \text{subj} \text{pars} =_{cd} \phi) \ (\neg \text{subj gen} =_{cd} \neg \text{gen}) \)

   \((\neg \text{subj num} =_{cd} \neg \text{num}) \ (\neg \text{subj per} =_{cd} \neg \text{per}) \ (\wedge = !) \)

   124
In this rule GFS2 is either a sequence of subject, an optional adverb phrase and object, or object, an optional adverb phrase or subject. The rule states that a simple sentence is either a sequence of subject, an optional adverb phrase, object, an optional adverb phrase and a transitive verb, or an object, an optional adverb phrase, subject, an optional adverb phrase and a transitive verb phrase. The f-equations state that verb agrees either with subject or with object whichever is unmarked. In case both are marked, the verb remains in masculine gender, singular number and third person. Verb always agrees with subject, in case subject is unmarked. The examples adhering to this rule are:

(i) hemant roTee khaataa hai.

(i) hemant ne roTee khaayee.

(iii) laRakon ne laRakiyon ko peetaa.

(iv) hemant raahul ko peeTataa hai.

4. S1 → GFS3(∀ = !) AD_VP (¬(! mood)) (∨ subj pars = cd φ) (∨ subj gen = cd !gen)

(∀ subj num = cd ! num) (∨ subj per = cd !per) (∨ = !)

OR

(¬(! mood)) (∨ subj pars = cd φ) (∨ obj pars = cd φ)

(∀ obj gen = cd ! gen) (∨ obj num = cd ! num)

(∀ obj per = cd ! per) (∨ = !)

OR

(¬(! mood)) (∨ subj pars = cd φ) (∨ obj pars = cd φ)
In this rule GFS3 is any sequence of subject, object and indirect object. Adverb phrase may occur anywhere in the sequence except in the beginning. The rule states that a simple sentence is a sequence of GFS3, an optional adverb phrase and a ditransitive verb phrase. The f-equations states that verb agrees either with subject or with object whichever is unmarked. In case both are marked, the verb remains in masculine gender, singular number and third person. Verb always agrees with subject, in case subject is unmarked. The examples adhering to this rule are:

(i) ramesh mohan ko pustak deetaa hai.
(ii) bahin ne bhaee ko rakhee baandhee.
(iii) suresh ne mohan ko raam se milaaya.
(iv) sohan nilesh ko pustak de.

5. GFS2 -> SUBJ(\^ = !) GFS10 (~(! obj mod ka_ad anaphor)) (\^ = !) |
   OR
   (! obj mod ka_ad anaphor)
   (~ obj mod ka_ad antcd= ^ subj) (\^ = !)

   OBJ (~(! obj mod ka_ad anaphor)) (\^ = !) GFS11(\^ = !) |
   OR
   (! obj mod ka_ad anaphor)
   (~ obj mod ka_ad antcd= ^ subj) (\^ = !)

   SUBJ(\^ = !) GFS21 (~(! obj mod ka_ad anaphor)) (\^ = !) |
   OR
   (! obj mod ka_ad anaphor)
   (~ obj mod ka_ad antcd= ^ subj) (\^ = !)
In this rule, grammatical function GFS10 & GFS21 is either object, or subject complement. Adverb phrase may optionally precede both of them. Grammatical function GFS11 & GFS22 is either adverb phrase followed by subject, or subject. Grammatical function GFS20 is combinations of subject and object where both are unmarked. Adverb phrase may occur in between. This rule states that the grammatical function GFS2 is either subject followed by GFS10 & GFS21, or object followed by GFS11 & GFS22. The examples adhering to this rule are:

(i) raam ne gaNit paRhaa.
(ii) raam ne apanee pustak kho dee.
(iii) gaNit raam ne paRhee.
(iv) apanee pustak raam ne phaaR dee.
(v) raam ne mohan ko peeTaa.
(vi) raam apane laRake ko peeTataa hai.
(vii) mohan ko raam ne peeTaa.
(viii) apane laRake ko raam ne peeTaa.
(ix) raam pustak paRataa hai.
(x) raam apanee pustak paRataa hai.

6. GFS3 -> SUBJ(^ = !)  GFS31 (~(! obj mod ka_ad anaphor)) | 
   (~(! obj mod ka_ad pronominal)) (^ = !)  
   OR
   (! obj mod ka_ad anaphor)
   (^ obj mod ka_ad antcd = ^ subj) (^ = !)
In this rule grammatical function GFS31 is either combinations of object and indirect object, or combinations of object or object complement. Adverb phrase may optionally occur anywhere in the combinations. Grammatical function GFS32 is combinations of subject and object. Adverb phrase may optionally occur anywhere in the combinations. Grammatical function GFS33 is either combinations of subject and indirect object, or combinations of subject or-object complement. Adverb phrase may optionally occur anywhere in the combinations. This rule states that the grammatical function GFS3 is either subject followed by GFS31, or indirect object followed by GFS32, or object followed by GFS33. The examples adhering to this rule are:

(i) *raam ne mohan ko pustak dee.*

(ii) *raam ne mohan ko dhoort samajhaa.*
(iii) raam ne mohan ko usakee pustak lataa dee.
(iv) mohan ko pustak raam ne deee.
(v) mohan ko raam ne dhoort samajhhaa.
(vi) mohan ko raam ne usakee pustak lataa deee.
(vii) pustak raam ne mohan ko deee.
(viii) apanee pustak raam ne mohan ko deee.
(ix) dhoort raam ne mohan ko samajhhaa.

7. GFS21 -> ADVP(^ = !) OBJ1(^ = !) | OBJ1(^ = !) |

ADVP(^ = !) SB_COMP (^ = !) |
(sb_comp type = cd adj) (^ subj pars = cd φ)
(^ subj num = cd ! num)

OR
(^ = !) (^ sb_comp type = cd verb)
(^ subj pars = cd φ) (^ subj num = cd ! num)

OR
(^ = !) (^ sb_comp type = cd ~adj)
(^ sb_comp type = cd ~verb)

SB_COMP (^ = !) (^ sb_comp type = cd adj)
(^ subj pars = cd φ) (^ subj num = cd ! num)

OR
(^ = !) (^ sb_comp type = cd verb)
(^ subj pars = cd φ) (^ subj num = cd ! num) (3.2.4)

OR
(^ = !) (^ sb_comp type = cd ~adj)
(^ sb_comp type = cd ~verb)

This rule states that grammatical function GFS21 is either an adverb phrase followed by an object, or an object, or adverb phrase followed by a subject complement, or a subject complement. The examples adhering to this rule are:

(i) motee bahut khaanaa khaataa hai.
8. GFS22 $\rightarrow$ ADVP($^= !$) SUBJ($^= !$) $|$ SUBJ($^= !$)
This rule states that grammatical function GFS22 is either an adverb phrase followed by a subject, or a subject. The examples adhering to this rule are:
(i) kal raam ko bukhara thaa.
(ii) mohan roTee achchhee banaataa hai.

9. GFS31 $\rightarrow$ ADVP($^= !$) GFS311($^= !$) $|$ GFS311($^= !$)
In this rule the grammatical function GFS31 is either a sequence of an indirect object, an adverb phrase and object, or an indirect object followed by an object, or a sequence of object, and adverb phrase and indirect object, or an object followed an indirect object, or a sequence of object, adverb phrase and an object complement, or an object followed by an indirect object. This rule states that grammatical function GFS31 is either an adverb phrase followed by GFS311, or GFS311. The examples adhering to this rule are:
(i) kal mohan ko shaam ko pustak raam ne dee.
(ii) kal mohan ko pustak raam ne dee.
(iii) kal pustak shaam ko mohan ko raam ne dee.
(iv) pustak mohan ko raam ne dee.
(v) raam naukar ko bahut dhoort samajhataa hai.
(v) raam naukar ko dhoort samajhataa hai.

10. GFS32 $\rightarrow$ ADVP($^= !$) GFS321($^= !$) $|$ GFS321($^= !$)
In this rule the grammatical function GFS32 is either a sequence of subject, an adverb phrase and object, or a subject followed by an object, or a combination of subject and object with an optional adverb phrase in between subject and object. The rule states that grammatical function GFS32 is either adverb phrase followed by GFS321, or GFS321. The examples adhering to this rule are:
(i) kal raam ne shaam ko pustak khaRedee.
(ii) \textit{k}al \textit{raam ne pustak khareedee.} \\
(iii) \textit{raam aksar ganit parhataa hai.} \\
(iv) \textit{ganit raam parhataa hai.} \\

11.GFS33 -> ADVP($^\gamma = !$) GFS331($^\gamma = !$) | GFS331($^\gamma = !$) \\
In this rule the grammatical function GFS33 is either a sequence of subject, an 
adverb phrase and indirect object, or a subject followed by an indirect object, or 
sequence of subject, adverb phrase, and object complement, or subject followed by an 
object complement or a sequence of indirect object, adverb phrase and subject, or an 
indirect object followed by a subject. This rule states that grammatical function GFS33 
is either an adverb phrase followed by a GFS331, or GFS331. The examples adhering 
to this rule are : 
(i) \textit{kal raam ne shaam ko mohan ko pustak dee.} 
(ii) \textit{kal raam ne mohan ko pustak dee.} 
(iii) \textit{naukar shuru se raam ko bahut dhoort lagaa.} 
(iv) \textit{naukar raam ko dhoort lagaa.} 
(v) \textit{mohan ko kal raam ne pustak dee.} 
(vi) \textit{mohan ko raam ne pustak dee.} \\

12.GFS311 -> IOBJ($^\gamma = !$) GFS10($^\gamma = !$) \ OBJ($^\gamma = !$) GFS23($^\gamma = !$) \\
This rule states that grammatical function GFS311 is either a sequence of an indirect 
object, an adverb phrase and object, or an indirect object followed by an object, or a 
sequence of object, and adverb phrase and indirect object, or an object followed an 
indirect object, or a sequence of object, adverb phrase and an object complement, or 
an object followed by an indirect object. The examples adhering to this rule are : 
(i) \textit{mohan ko kal pustak raam ne dee.} 
(ii) \textit{mohan ko pustak raam ne dee.} 
(iii) \textit{pustak kal mohan ko raam ne dee.} 
(iv) \textit{pustak mohan ko raam ne dee.} 
(v) \textit{raam naukar ko bahut dhoort samajhataa hai.} 
(v) \textit{raam naukar ko dhoort samajhataa hai.}
13. GFS321 -> SUBJ(= !) GFS10(= !) | GFS20(= !)

This rule states that grammatical function GFS321 is either a sequence of subject, an adverb phrase and object, or a subject followed by an object, or a combination of subject and object with an optional adverb phrase in between subject and object. The examples adhering to this rule are:

(i) raam ne kal pustak khareedee.
(ii) raam ne pustak khareedee.
(iii) raam aksar gaNit paRhataa hai.
(iv) gaNit raam paRhataa hai.

14. GFS331 -> SUBJ(= !) GFS23(= !) | IOBJ(= !) GFS22(= !)

This rule states that grammatical function GFS331 is either a sequence of subject, an adverb phrase and indirect object, or a subject followed by an indirect object, or sequence of subject, adverb phrase, and object complement, or subject followed by an object complement or a sequence of indirect object, adverb phrase and subject, or an indirect object followed by a subject. The examples adhering to this rule are:

(i) raam ne kal mohan ko pustak dee.
(ii) raam ne mohan ko pustak dee.
(iii) naukar raam ko bahut dhoort lagaa.
(iv) naukar raam ko dhoort lagaa.
(v) mohan ko kal raam ne pustak dee.
(vi) mohan ko raam ne pustak dee.

15. GFS23 -> ADVP(= !) IOBJ(= !) | IOBJ(= !)

ADVP(= !) OB_COMP

(^ ob_comp type = _cd adj) |
(^ subj pars = _cd ~ ) (^ obj pars = _cd _phi )
(^ obj num = _cd ! num ) ( ^ = ! )

OR

(^ ob_comp type = _cd verb )
(^ subj pars = _cd ~ ) (^ obj pars = _cd _phi )
(^ obj num = _cd ! num ) ( ^ = ! )
This rule states that grammatical function GFS23 is either an adverb phrase followed by an indirect object, or indirect object, or adverb phrase followed by a object complement, or an object complement. The examples adhering to this rule are:

(i) mukesh ne kal raahul ko angoor khilaaye.
(ii) mukesh ne raahul ko angoor khilaaye.
(iii) mujhe naukar bahut hoshiyaar lagataa hai.
(iv) mohan gaaRee gairaj men rakhataa hai.

This rule states that grammatical function GFS20 consists of two unmarked noun phrases with an adverb phrase in between, where one of the noun phrase represents subject and other represents object. The examples adhering to this rule are:

(i) raam kalam se patra likhataa hai.
(ii) seetaa chammach se chaaval khaatee hai.
This rule states that grammatical function GFS20 consists of two unmarked noun phrases, where one of the noun phrase represents subject and other represents object. The examples adhering to this rule are:

(i) *raam gaNIt paRataa hai.*
(ii) *seetaa rotee khaatee hai.*

This rule states that grammatical function GFS10 is either an adverb phrase followed by an object, or an object. The examples adhering to this rule are:

(i) *raam ne mohan ko kal pustak dee.*
(ii) *mohan ne aam khae.*

This rule states that grammatical function GFS11 is either an adverb phrase followed by a subject, or a subject. The examples adhering to this rule are:

(i) *kal raam ne mohan ko pustak dee.*
(ii) *mohan ne aam khaee.*

This rule state that subject is a noun phrase followed by subject postposition. In this case subject postposition may not be present. The examples adhering to this rule are:

(i) *raam roTee pasand karataa hai.*
(ii) *rohit ne laaThee se saanp maaraa.*

This rule state that subject is a noun phrase followed by subject postposition. In this case subject postposition must be present. The examples adhering to this rule are:
(i) \textit{rohit ne laaThee se saanp maaraa.} \\
(ii) \textit{mohan se kap TooT gayaa.}

22.OBJ \rightarrow \text{NP}(\text{^obj = 1}) \text{ OBJP}(\text{^ = 1}) \\
This rule states that object is a noun phrase followed by object postposition. In this case object postposition must be absent. The examples adhering to this rule are: \\
(i) \textit{vah roTee pasand karataa hai.} \\
(ii) \textit{main dahee roj khaataa hoon.}

23.OBJ1 \rightarrow \text{NP}(\text{^obj = 1}) \text{ OBJP1}(\text{^ = 1}) \\
This rule states that object is a noun phrase followed by object postposition. In this case object postposition must be present. The examples adhering to this rule are: \\
(i) \textit{vah bachchon ko Daraataa rahataa hai.} \\
(ii) \textit{ve kutton ko pakaRate hain.}

24.IOBJ \rightarrow \text{NP}(\text{^iobj = 1}) \text{ IOBJP}(\text{^ = 1}) \\
This rule states that indirect object is a noun phrase followed by a indirect postposition. The examples adhering to this rule are: \\
(i) \textit{vah mahan ko miThaaee detaa hai.} \\
(ii) \textit{rohit ne raahul ko kitaab dee.}

25.SB_COMP \rightarrow \text{NP}(\text{^sb_comp = 1}) \text{ ADJ}(\text{^sb_comp = 1}) \text{ (^sb_comp type = adj)} \text{ ADVP}(\text{^sb_comp = 1}) \text{ (! adv vtype) (^ sb_comp type = verb)} \\
This rule states that subject complement is either noun phrase, or adjective, or an adverb phrase. The examples adhering to this rule are: \\
(i) \textit{vah chor najar aataa hai.} \\
(ii) \textit{dahee khaTTee lagaa.} \\
(iii) \textit{sheelaa ne nahaakar roTee pakaayee.}

26.OB_COMP \rightarrow \text{NP}(\text{^ob_comp = 1}) \text{ ADJ (^ob_comp = 1)} \text{ (^ob_comp type = adj)}
This rule states that object complement is either noun phrase, or adjective, or an adverb phrase. The examples adhering to this rule are:

(i) mujhe vah chor najar aataa hai.
(ii) usako dahee khaTTaa lagaa.
(iii) sheelaa ne roTee pakaakar mohan ko dee.

27. AD_VP -> ADVP(\(^{\wedge}\)ob_comp = !) (\(^{\wedge}\)adv vtype) (\(^{\wedge}\)ob_comp type = verb) VP(\(^{\wedge}\)ob_comp = !)

This rule states that AD_VP is either adverb phrase followed by a verb phrase, or a verb phrase. The examples adhering to this rule are:

(i) raam bahut tej dauRataa hai.
(ii) raam so rahaa hai.

### 5.3 Compound Sentence

A compound sentence consists of more than one independent clause joined together by coordinating conjunction. In a compound sentence, the sentence following the conjunction may have a missing subject that refers to the subject of the sentence preceding the conjunction. The f-equations in the rules bind missing subject and one which it refers to. In the rules, symbols CORD_CONJ3 and S3 denote coordinating conjunction and sentence, respectively.

Rules proposed to describe the structure of a compound sentence are:

1. \( S \rightarrow S1(\(^{\wedge}\)st1 = !) \) CORD_CONJ3(\(^{\wedge}\) !) S1
   \[ \sim (\sim \text{subj pronominal} = c_i +) \]
   \[ (\sim \text{st2} = !) \]
   \[ \text{OR} \]
   \[ (! \text{subj pronominal} = c_i +) \]
   \[ (\sim \text{st2 anted} = \sim \text{st1 subj}) \]
   \[ (\sim \text{st1 subj num} = c_d ! \text{num}) \]
   \[ (\sim \text{st1 subj per} = c_d ! \text{gen}) \]
This rule states that a compound sentence consists of two simple sentences joined together by coordinating conjunction. The f-equations "!subj pronominal =c + and ^st2 anted = ^st1 subj" states that if the subject of second sentence is a pronoun than it refers to the subject of the first sentence. The examples adhering to this rule are:

(i) *chiRivaa ko galee lagee aur vah neeche gir gayee.*
(ii) *raam kal chalaa gayaa thaa lekin seetaa aaj jaayegee.*

2. S -> S1( ^st1 = ! ) CORD_CONJ3( ^st2 = ! ) S3

(^ st2 = !) (^ st1 subj=! subj)

OR

(! subj pronominal =c +)
(^ st2 anted = ^ st1 subj)
(^ st1 subj = ! subj)
(^ st1 subj nurn =cd ! num)
(^ st1 subj per =cd ! gen)
(^ st2 = !)

This rule states that a compound sentence consists of two simple sentence joined by coordinating conjunction where the second sentence will have a missing subject. The second sentence is denoted by S3 which is illustrated in next rule. The examples adhering to this rule are:

(i) *raam baajaar gayaa aur sabjee khareedakar laayaa.*
(ii) *sohan ne pustak khareedee aur vah mohan ko de dee.*
(iii) *sohan ne pustak khareedee aur chalaa gayaa.*

3. S3 -> GFS21( ^ = ! ) AD_VP( ^ = ! ) | GFS31( ^ = ! ) AD_VP( ^ = ! ) | AD_VP( ^ = ! )

This rule states that grammatical function S3 is either a sequence of adverb phrase, object, adverb phrase and a verb phrase, or a sequence of an object, adverb phrase and verb phrase, or a sequence of adverb phrase, subject complement, adverb phrase and verb phrase, or a sequence of indirect object, adverb phrase, object, adverb phrase and verb phrase, or a sequence of object, adverb phrase, indirect object, adverb phrase and verb phrase, or a sequence of object, adverb phrase, object complement, adverb phrase
and verb phrase, or a sequence of adverb phrase and verb phrase. Adverb phrase is optional everywhere. For example

(i) \textit{raam baajaar gayaa aur sabjee khareedakar laayaa.}
(ii) \textit{sohan ne pustak khareedee aur vah mohan ko de dee.}
(iii) \textit{sohan ne pustak khareedee aur chalaa gayaa.}

5.4 Complex Sentence

A complex sentence consists of more than one clause joined together by subordinating conjunctions (e.g. ki, jo etc.). A subordinating conjunction occurs in place of missing grammatical relation in the subordinate clause and it refers to either subject, object or indirect object in the main clause. Though, generally a subordinate clause comes after the main clause but in some construction, it may appear before the main clause or within the main clause. In the rules symbols SUBD\_CONJ, SUBD\_CONJ1, SUBD\_CONJ2, SUBD\_CONJ3 and SUBD\_CONJ4 denote different kind of subordinating conjunction, and symbols GFS4 and GFS5 denote grammatical functions.

Rules proposed to describe the structure of a complex sentence are:

1. $S \rightarrow S_1(^{=}!) \text{ SUBD\_CONJ2}(^{=}!) \text{ S1} (\text{! subj anaphor } =_{ci} +) (
^{s\_comp} = !)
\text{ OR}
(\text{! subj anaphor } =_{ci} +)
(\text{! subj num } =_{cd} \text{ subj num})
(\text{! subj per } =_{ci} \text{ first})
(\text{! subj num } =_{cd} \text{ subj num})
(\text{! subj prounoun } =_{cd} +)
(\text{! subj prounoun } =_{cd} +)
(\text{! subj prounoun } =_{cd} +)
(\text{! subj prounoun } =_{cd} +)
(\text{! subj prounoun } =_{cd} +)
This rule states that a complex sentence consists of two sentences joined by a subordinating conjunction. The second sentence depends on first sentence. The examples adhering to this rule are:

(i) raam ne bataayaa ki mohan kal jaayegaa.
(ii) raam ne kahaa ki main jaaongaa.
(iii) raam ne mohan se poochhaa ki tum kheloge.

2. S -> S1(^ = !) S1(^ s_comp = !)
This rule states that a complex sentence consists of two sentences. The subordinating conjunction in between is implied. The examples adhering to this rule are:

(i) raam ne bataayaa mohan kal jaayegaa.
(ii) raam ne mohan se poochhaa tum kheloge.

3. S -> S1(^ = !) SUBD_CONJ(^ = !) GFS4 (^ s_comp = !)
   (^ subj pars =cd \(\phi\))
   (^ subj =^ s-comp subj)
   OR
   (^ subj pars =cd \(\sim\)\(\phi\))
   (^ obj pars =cd \(\phi\))
   (^ obj =^ s-comp subj) (^ s_comp = !)

In this rule, the grammatical function GFS4 is either a sequence of an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of an object, adverb phrase and verb phrase, or an adverb phrase followed by a verb phrase. In all the sequences, adverb phrase is optional constituent. This rule states that a compound sentence is either a sequence simple sentence, subordinating conjunction, an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of simple sentence, subordinating conjunction, an object, adverb phrase and verb phrase, or a sequence of simple sentence, subordinating conjunction, an object, adverb phrase and verb phrase, or a sequence of simple sentence, subordinating conjunction, an adverb phrase followed by a verb phrase. The examples adhering to this rule are:

(i) baahar ek aadamee khaRaa hai jo aapase milanaa chaahataa hai.
(ii)  *baagh ne bakaree maar dee jo raam kee thee.*

4. **S -> SUBJ(\(^=1\)) SUBD_CONJ(\(^=1\)) GFS5(\(^=1\))**

In this rule, the grammatical function GFS5 consists of a sentence followed by either a sequence of an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of an object, adverb phrase and verb phrase, or an adverb phrase followed by a verb phrase. This rule states that a compound sentence consists of a subject, subordinating conjunction followed by either a sequence of a simple sentence, an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of a simple sentence, an object, adverb phrase and verb phrase, or a sequence of a simple sentence, an adverb phrase and a verb phrase. In all the sequences, adverb phrase is optional constituent. The examples adhering to this rule are:

(i)  *kuchh log jo is prastaav se asantusaT hain aapase milanaa chaahate hai.*

(ii)  *aapakee yah aashaa ki main ghar chhoRakar chalee jaaoongee kabhee pooree nahin hogee.*

5. **S -> SUBJ(\(^=1\)) GFS5(\(^=1\))**

This rule states that a compound sentence consists of a subject followed by either a sequence of a simple sentence, an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of a simple sentence, an object, adverb phrase and verb phrase, or a sequence of a simple sentence, an adverb phrase and a verb phrase. In all the sequences, adverb phrase is optional constituent. The examples adhering to this rule are:

(i)  *kuchhlog is prastaav se asantuShT hain aapase milane aaye hain.*

(ii)  *aapakee yah aashaa main ghar chhoRakar chalee jaaoongee kabhee pooree nahin hogee.*

6. **S -> SUBD_CONJ3(\(^=1\)) S1(\(^=1\)) SUBD_CONJ4(\(^=1\)) S1(\(^=1\))**

This rule states that a compound sentence is a sequence of relative conjunction, simple sentence, correlative conjunction and a simple sentence. The examples adhering to this rule are:

(i)  *jahaan vah rahatee hai vahaan shaayad ek puraanaa mandir hai.*
(ii) jyonhee main kamare men pahunchaa tyonhee ramesh bhee aa gayaa.

7. $S \rightarrow \text{SUBD\_CONJ3}(^\land = !) \quad S1(^\land = !) \quad \text{SUBD\_CONJ4}(^\land = !)$

\[
\text{GFS5}(\wedge \text{comp} = !) \quad (\wedge \text{subj} = \wedge \text{comp subj})
\]

This rule states that a compound sentence consists of a sequence of relative conjunction, simple sentence, correlative conjunction followed by either a sequence of simple sentence, an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of simple sentence, an object, adverb phrase and verb phrase, or a sequence of simple sentence, an adverb phrase and a verb phrase. In all the sequences, adverb phrase is optional constituent. The examples adhering to this rule are:

(i) jab hamaaraa sene kaa samay hotaa hai tab ramesh jo kaam par gayaa hotaa hai vaapas lautataa hai.

8. $\text{GFS5} \rightarrow S1(^\wedge \text{s\_comp} = !) \quad \text{GFS4}(^\wedge = !)$

This rule states that the grammatical function $\text{GFS5}$ consists of a sentence followed by either a sequence of an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of an object, adverb phrase and verb phrase, or an adverb phrase followed by a verb phrase. In all the sequences, adverb phrase is optional constituent. The examples adhering to this rule are:

(i) kuchh log jo is prastaav se asantusaT hain aapase milana chaahate hai.
(ii) aapakee yah aashaa ki main ghar chhoRakar chalee jaaoongee kabhee pooree nahiin hogee.

9. $\text{GFS4} \rightarrow \text{ADVPC}^\wedge (^\wedge = !) \quad \text{OBJ}(^\wedge \text{OBJ} = !) \quad \text{AD\_VP}(^\wedge = !)$

\[
\text{OBJ}(^\wedge \text{OBJ} = !) \quad \text{AD\_VP}(^\wedge = !) \quad \text{AD\_VP}(^\wedge = !)
\]

This rule states that the grammatical function $\text{GFS4}$ is either a sequence of an adverb phrase, an object, an adverb phrase and a verb phrase, or a sequence of an object, adverb phrase and verb phrase, or an adverb phrase followed by a verb phrase. In all the sequences, adverb phrase is optional constituent. The examples adhering to this rule are:

(i) reenaa jaaRon men aam bahut pasand karatee hai.
(ii) reenaa aam bahut pasand karatee hai.
10. SUBD_CONJ -> SUBD_CONJ1(\(\wedge = 1\)) \(\lor\) SUBD_CONJ2(\(\wedge = 1\))

### 5.5 Lexical Entry for Postpositions and Conjunctions

This section describes the structure of lexical entries for postpositions and conjunctions with functional equations. Postpositions and conjunctions have been subcategorized. The lexical entry contains subcategories instead of categories.

\[
\text{ne} : \text{SUBJP} \quad \text{ko} : \text{SUBJP} \quad \text{ke dwara} : \text{SUBJP}
\]
\[
(\wedge \text{subj parsarg} = 'ne') \quad (\wedge \text{subj parsarg} = 'ko') \quad (\wedge \text{subj parsarg} = 'ke dwara')
\]

\[
\text{se} : \text{SUBJP} \quad \text{dwa} : \text{SUBJP} \quad \phi : \text{SUBJP}.
\]
\[
(\wedge \text{subj parsarg} = 'se') \quad (\wedge \text{subj parsarg} = 'dwa') \quad (\wedge \text{subj parsarg} = !)
\]

\[
\text{ko} : \text{IOBJP} \quad \text{se} : \text{IOBJP} \quad \phi : \text{OBJP}
\]
\[
(\wedge \text{iobj parsarg} = 'ko') \quad (\wedge \text{iobj parsarg} = 'se') \quad (\wedge \text{obj parsarg} = \phi)
\]

\[
\text{ne} : \text{SUBJP} \quad \text{ke dwara} : \text{SUBJP}
\]
\[
(\wedge \text{subj parsarg} = 'ne') \quad (\wedge \text{subj parsarg} = 'ke dwara')
\]

\[
\text{ko} : \text{OBJP} \quad \text{se} : \text{OBJP}
\]
\[
(\wedge \text{obj parsarg} = 'ko') \quad (\wedge \text{obj parsarg} = 'se')
\]

\[
\text{yaa} : \text{CORD_CONJ3} \quad \text{aur} : \text{CORD_CONJ3} \quad \text{lekin} : \text{CORD_CONJ3}
\]
\[
(\wedge \text{conj} = 'yaa') \quad (\wedge \text{conj} = 'aur') \quad (\wedge \text{conj} = 'lekin')
\]
\[
(\wedge \text{type = coordinate}) \quad (\wedge \text{type = coordinate}) \quad (\wedge \text{type = coordinate})
\]

\[
\text{jo} : \text{SUBD_CONJ1} \quad \text{ki} : \text{SUBD_CONJ2} \quad \text{jyon} : \text{SUBD_CONJ3}
\]
<table>
<thead>
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<th>type</th>
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</thead>
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</tr>
<tr>
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</tr>
<tr>
<td>'jyon'</td>
<td>subordinate</td>
</tr>
<tr>
<td>'jab'</td>
<td>subordinate</td>
</tr>
<tr>
<td>'tyon'</td>
<td>subordinate</td>
</tr>
<tr>
<td>'tab'</td>
<td>subordinate</td>
</tr>
</tbody>
</table>

\[ \text{jab : SUBD\_CONJ3 \quad tyon : SUBD\_CONJ4 \quad tab : SUBD\_CONJ4} \]