

SCRIPT GRAMMAR FOR MALAYALAM LANGUAGE

Prepared by

Technology Development for Indian Languages (TDIL) Programme of DIT, GoI in co-ordination with

C-DAC, GIST Pune

Following guidelines have been followed while preparing this script grammar.

1. This document contains information especially as to how shapes are formed which is filled out by hand.
2. This document is written by Gujarati Experts and Validated by Eminent Personalities in Gujarati Language.
3. Subsequent to the validation by Eminent Personalities, this document is also checked and validated by the State Government or the statutory certifying body in Gujarat State.
4. Insofar as Section 8 is concerned, following things should be noted:

1. LIGATURES:

- Dead ligatures i.e. ligatures which are dysfunctional in the language have not been used.
- CHC cases have been tested and checked.
- More complex clusters such as CHCHC etc have been generated out from the corpus and presented for checking

2. VARIANTS

Variants haven been handled in the script grammar and where two variants exist concurrently for the same shape and are deemed as viable, one of them has been entered in the document and the other has been provided separately as a variant. Uniformity has been maintained i.e. all stacked variants haven been bunched together whereas the non-stacked variant have been grouped together.

5. Items such as the History of the Language and the evolution of the script has been supplied in the form of an Appendix.

6. Other points - ZWJ/ZWNJ

Consortium members were requested to determine exactly where these 2 characters are to be used and send a list for onward transmission to DIT

CLARIFICATION:

- The final statutory body will be the State Government which will validate all Script Grammar documents The State Government may delegate the evaluation to a committee or a Normative body for certification.
- Where no such body exists the State Govt. shall name a committee or members for the evaluation process.
- The final approval of the state is a must for certifying the document

Name(s) of Expert

Dr. Ezhumattoor Rajarajavarma, (Language Expert to Govt. of Kerala (Retd))

Name(s) of Evaluator

Dr. Rathan U. Kelkar, Director, Kerala State Information Technology Mission

1. Name of the language and its representation in the 3 letter mnemonic

Name of the Language: MALAYALAM

Alpha-3 code: MAL

2. Name of the statutory board governing the language

The name and address /tel number/email of the statutory body

Kerala State Information Technology Mission,

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Tel: +91-471-272 6881, 231 4307. Telefax: +91 471 231 4284 Email: response@keralaitmission.org

A scanned/hard copy of the statutes laid down. (Appended if available)

3. Identification of the writing system(s) used to inscribe the given language

The name(s) of the script system(s) used.

MALAYALAM SCRIPT

4. Short Historical Picture of the Language and the Script used.

As in Appendix to the document.

5. Modifications brought to the writing system by a given language in terms of addition of characters and deprecation of other characters.

(Enumeration of the character set of the language as per the sorting order.)

CONSONANTS

ക ഖ ഗ ഘ ങ
ച ഛ ജ ഝ ഞ
ട ള ഡ ണ ഹ
ത ഡ ദ ധ ന
പ ഫ ബ ഭ മ
യ ര ല വ
ശ ഷ സ ഹ
ഋ ഈ റ

VOWELS

അ ഓ ഇ ഊ
ഉ ഋ ഈ ഐ ഏ
ഐ ഒ ഓ ഔ

MATRAS (Vowel Signs)

ാ ി ീ ു ൂ ൃ ൄ ൅
ഐ ഓ ഔ

Virama (Chandrakkala) – Chandrakala only is needed : ി

DIACRITICS (Anuswaram and Visaragam) : ഴ ഴ

NUMERALS : ൦ ൧ ൨ ൩ ൪ ൫ ൬ ൭ ൮ ൯

| | | | | | | |
|--|---|---|--|---|---|--|
| <p>ച</p> <p>ചോതി 03/38 പഞ്ചമി 59/12</p> | <p>ര</p> <p>16 വിശാഖം 07/42 ഷഷ്ഠി 60/00</p> | <p>ന</p> <p>17 അനിഴം 13/20 ഷഷ്ഠി 03/14</p> | <p>ർ</p> <p>18 തൃക്കേട്ട 20/16 സപ്തമി 08/48</p> | <p>രൂ</p> <p>19 മുലം 27/53 അഷ്ടമി 15/10</p> | <p>ന</p> <p>20 പൂരാടം 35/35 നവമി 21/43</p> | <p>9</p> <p>21 ഉത്രാടം 42/46 ദശമി 27/53</p> |
| <p>വൃ</p> <p>തിരുവോണം 48/49 ഏകാദശി 32/58</p> | <p>ൻ</p> <p>23 അവിട്ടം 53/32 ദ്വാദശി 36/36</p> | <p>ഫം</p> <p>24 ചതയം 56/30 ത്രയോദശി 38/37</p> | <p>ഫഫ</p> <p>25 പുരുരൂട്ടാതി 58/01 ചതുർദശി 39/00</p> | <p>ഫര</p> <p>26 ഉത്രട്ടാതി 58/04 37/50</p> | <p>ഫന</p> <p>27 രേവതി 56/48 പ്രതിപദം 35/14</p> | <p>ഫർ</p> <p>28 അശ്വതി 54/41 ദിതീയ 31/41</p> |
| <p>ഫരൂ</p> <p>ഭരണി 51/50 തൃതീയ 27/19</p> | <p>ഫന്ന</p> <p>30 കാർത്തിക 48/36 ചതുർത്ഥി 22/22</p> | <p>ഫ9</p> <p>31 രോഹിണി 45/04 പഞ്ചമി 17/13</p> | <p>ഫവൃ</p> <p>1 മകയിരം 41/46 ഷഷ്ഠി 12/00</p> | <p>ഫൻ</p> <p>2 തിരുവാതിര 38/25 സപ്തമി 06/42</p> | <p>രം</p> <p>3 പുണ്യം 35/14 അഷ്ടമി 01/38 നവമി 56/38</p> | <p>രഫ</p> <p>4 പുയം 32/15 ദശമി 51/55</p> |
| <p>രര</p> <p>ആയില്യം 29/31 ഏകാദശി 47/27</p> | <p>രന</p> <p>6 മകം 27/09 ദ്വാദശി 43/25</p> | <p>രർ</p> <p>7 പൂരം 25/17 ത്രയോദശി 39/55</p> | <p>രരൂ</p> <p>8 ഉത്രം 24/00 ചതുർദശി 37/04</p> | <p>രന്ന</p> <p>9 അത്തം 23/38 35/14</p> | <p>ര9</p> <p>10 ചിത്തിര 24/28 പ്രതിപദം 34/37</p> | <p>രവൃ</p> <p>11 ചോതി 26/34 ദിതീയ 35/27</p> |
| <p>രൻ</p> <p>2 വിശാഖം 30/08 27/27</p> | <p>നം</p> <p>13 അനിഴം 35/07 പത്മിനി 41/16</p> | | | | <p>ര ശു</p> <p>കു ബു</p> <p>ഗു സ</p> <p>ബു 8-37½ മിനം ബു 23-37½ മേടം</p> <p>ശി മ</p> <p>ച</p> | |

OTHERS

Unicode chart is attached at the End of the Document.

CHILLU Characters

ൺ ന് റ് ല് ഉ്

A copy of the Malayalam Unicode Page is appended for your kind information.

6. The structure of the writing system of the language

Tick whichever is appropriate: Abjad ☐ Abugida. ☐

7. Rule ordering of the characters within the syllable (only for abugidas)

NO description needed. Unless the script does not obey ISCII syllable rules

Can the Anuswaram be followed by a Visarga: **NO**

8. Script Pertinent Description of the syllabic clusters

8.1. BASIC SET OF CHARACTERS

- The basic set of characters has been provided in this inventory.
- These are arranged as per their class: CONSONANT / VOWEL / MATRAS / DIACRITICS
- The allographs are presented at the end.

INSTRUCTIONS

- In case you do not see any issues just tick the VALID box. In case you see issues tick invalid and provide the necessary correction for the combination in question.
- In case a particular character is not used in your script, please cross it out
- In case you feel a particular character from your script has been left out, please specify the same.

8.1.1. CONSONANT SET: VALID / INVALID

Basic Consonants arranged as per their vargas

| | | | | |
|---|---|---|---|---|
| ക | ഖ | ഗ | ഘ | ങ |
| ച | ഛ | ജ | ഝ | ഞ |
| ട | ഠ | ഡ | ഡ | ണ |
| ത | ഥ | ദ | ധ | ന |
| പ | ഫ | ബ | ഭ | മ |
| യ | ര | ല | വ | |
| ശ | ഷ | സ | ഹ | |
| ള | ഴ | റ | | |
| | | | | |

8.1.2 CHILLU CHARACTERS

ൺ ൽ ൾ ൿ ൿ

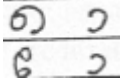
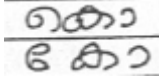


8.1.3.VOWEL SET:

അ ആ ഇ ഊ ഉ ഊ ഋ എ ഏ ഐ ഓ ഔ ഓ

8.1.4. MATRA SET (Vowel Signs)

ാ ി ൿ ു ൃ ൅ െ േ ൈ ൉ ൊ ോ ൌ

Active Catenator(s) i.e. Displaced Matra(s):

| CATENATOR | POSITION | EXAMPLE |
|---|-------------------------|---|
|  | Consonant at the middle |  |
|  | Consonant at the middle |  |

8.1.5 CHANDRAKALA

◌̣
◌̤

8.1.6. DIACRITICS

◌̣ Anuswaram

◌̤ Visargam

Avagraha which is rarely used has also been omitted.

8.1.7. PUNCTUATION MARKERS

Please specify the punctuation markers specific to the character set omitting the markers taken from the Latin set such as . , ; : “ ‘ () [] etc.

8.1.8. NUMERALS/DIGITS

Please specify the numbers for your script. Is the following VALID/ INVALID

○ ൧ ൨ ൩ ൪ ൫ ൬ ൭ ൮ ൯

Please specify if the English (Latino-Arabic set: 0,1,2,3,4,5,6,7,8,9) is used in official communications ?

Yes. It is compulsory.

8.1.9. OTHER SYMBOLS (religious, currency markers etc. included in Unicode)

൯ - Malayalam Date Mark

൧൦ - Malayalam number Ten

൧൦൦ - Malayalam number one hundred

൧൦൦൦ - Malayalam number one thousand

൧൦൦൦൦ - Malayalam Fraction one quarter

൧൦൦൦൦൦ - Malayalam Fraction one half

൧൦൦൦൦൦൦ - Malayalam Fraction three quarters

8.2 ALLOGRAPHS (Consonant Signs)

8.2.1. ALLOGRAPHS OF ௐ or ௑

NOTE: Both rafars and rakars will be automatically generated out in the CHC list. The present inventory is just for validating the different forms that exist in your script.

ക - ക്ക ௐ

പ - പ്ക ௐ

ക - ക്ക ௑

പ - പ്ക ௑

Although “ ௐ ” can be allograph of both ௐ and ௑ , depending upon the context, a unique representation should be adopted in keyboard driver and font implementations. For compatibility reasons, ௐ is preferred at present. However there should be a detailed discussion in this matter and a final decision should be taken to avoid future lexicography problems.

8.2.2. ALLOGRAPHS OF ௒

ക - ക്ക ௒

ത - ത്ക ௒

8.2.3. ALLOGRAPHS OF ௓

ക - ക്ക ௓

പ - പ്ക ௓


8.2.4. ALLOGRAPHS OF ௔ or ௕

ക - ക്ക ௔

പ - പ്ക ௔

ക - ക്ക ௕

പ - പ്ക ௕

Although  can be allograph of both ല and ള, depending upon the context, a unique representation should be adopted in keyboard driver and font implementations. For compatibility reasons, ല is preferred at present. However there should be a detailed discussion in this matter and a final decision should be taken to avoid future lexicography problems.

8.3. CONSONANT+MATRA (Vowel Sign) COMBINATIONS

- This set is divided into three parts:
- CM: The combination of Consonant and Matra
- CMD (Anuswaram) i.e. Consonant+ Matra+ Anuswaram
- In case you do not see any issues just tick the VALID box. In case you see issues tick invalid and provide the necessary correction for the combination in question.
- Please do not forget that some combinations are dead clusters but are still needed by the font designer to generate out the grammar.
- In case you feel a particular Consonant+Matra combination has been left out, please specify the same.
- In case a particular character combination is not used in your script, please cross it out

8.3.1. CM: VALID / INVALID

| | ക | ഖ | ഗ | ഘ | ങ | ച | ഛ | ജ | ട | ണ |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ാ | കാ | ഖാ | ഗാ | ഘാ | ങാ | ചാ | ഛാ | ജാ | ടാ | ണാ |
| ി | കി | ഖി | ഗി | ഘി | ങി | ചി | ഛി | ജി | ടി | ണി |
| ീ | കീ | ഖീ | ഗീ | ഘീ | ങീ | ചീ | ഛീ | ജീ | ടീ | ണീ |
| ു | കു | ഖു | ഗു | ഘു | ങു | ചു | ഛു | ജു | ടു | ണു |
| ൂ | കൂ | ഖൂ | ഗൂ | ഘൂ | ങൂ | ചൂ | ഛൂ | ജൂ | ടൂ | ണൂ |
| ു് | കു് | ഖു് | ഗു് | ഘു് | ങു് | ചു് | ഛു് | ജു് | ടു് | ണു് |
| െ | കെ | ഖെ | ഗെ | ഘെ | ങെ | ചെ | ഛെ | ജെ | ടെ | ണെ |
| േ | കേ | ഖേ | ഗേ | ഘേ | ങേ | ചേ | ഛേ | ജേ | ടേ | ണേ |
| ൈ | കൈ | ഖൈ | ഗൈ | ഘൈ | ങൈ | ചൈ | ഛൈ | ജൈ | ടൈ | ണൈ |
| ൊ | കൊ | ഖൊ | ഗൊ | ഘൊ | ങൊ | ചൊ | ഛൊ | ജൊ | ടൊ | ണൊ |
| ോ | കോ | ഖോ | ഗോ | ഘോ | ങോ | ചോ | ഛോ | ജോ | ടോ | ണോ |
| ൗ | കൗ | ഖൗ | ഗൗ | ഘൗ | ങൗ | ചൗ | ഛൗ | ജൗ | ടൗ | ണൗ |

| | | | | | | | | | | |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| | s | o | ഡ | ഡ | ണ | ത | ഥ | ദ | ധ | ന |
| ാ | sa | oa | ഡാ | ഡാ | ണാ | താ | ഥാ | ദാ | ധാ | നാ |
| ി | si | oi | ഡി | ഡി | ണി | തി | ഥി | ദി | ധി | നി |
| ീ | sī | oī | ഡീ | ഡീ | ണീ | തീ | ഥീ | ദീ | ധീ | നീ |
| ു | su | ou | ഡു | ഡു | ണു | തു | ഥു | ദു | ധു | നു |
| ൂ | sū | oū | ഡൂ | ഡൂ | ണൂ | തൂ | ഥൂ | ദൂ | ധൂ | നൂ |
| ്യ | sy | oy | ഡ്യ | ഡ്യ | ണ്യ | ത്യ | ഥ്യ | ദ്യ | ധ്യ | ന്യ |
| െ | se | oe | ഡെ | ഡെ | ണെ | തെ | ഥെ | ദെ | ധെ | നെ |
| േ | se | oe | ഡേ | ഡേ | ണേ | തേ | ഥേ | ദേ | ധേ | നേ |
| ൈ | se | oe | ഡൈ | ഡൈ | ണൈ | തൈ | ഥൈ | ദൈ | ധൈ | നൈ |
| ൊ | so | oo | ഡൊ | ഡൊ | ണൊ | തൊ | ഥൊ | ദൊ | ധൊ | നൊ |
| ോ | so | oo | ഡോ | ഡോ | ണോ | തോ | ഥോ | ദോ | ധോ | നോ |
| ൗ | su | ou | ഡൗ | ഡൗ | ണൗ | തൗ | ഥൗ | ദൗ | ധൗ | നൗ |

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| | പ | ഫ | ബ | ഭ | മ | യ | ര |
| ാ | pa | fa | ba | ba | ma | ya | ra |
| ി | pi | fi | bi | bi | mi | yi | ri |
| ീ | pī | fī | bī | bī | mī | yī | rī |
| ു | pu | fu | bu | bu | mu | yu | ru |
| ൂ | pū | fū | bū | bu | mū | yū | rū |
| ്യ | py | fy | by | by | my | yy | ry |
| െ | pe | fe | be | be | me | ye | re |
| േ | pe | fe | be | be | me | ye | re |
| ൈ | pe | fe | be | be | me | ye | re |
| ൊ | po | fo | bo | bo | mo | yo | ro |
| ോ | po | fo | bo | bo | mo | yo | ro |
| ൗ | pu | fu | bu | bu | mu | yu | ru |

| | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|
| | റ | ല | വ | ശ | ഷ | സ | ഹ |
| ാ | റാ | ലാ | വാ | ശാ | ഷാ | സാ | ഹാ |
| ി | റി | ലി | വി | ശി | ഷി | സി | ഹി |
| ീ | റീ | ലീ | വീ | ശീ | ഷീ | സീ | ഹീ |
| ു | റു | ലു | വു | ശു | ഷു | സു | ഹു |
| ൂ | റൂ | ലൂ | വൂ | ശൂ | ഷൂ | സൂ | ഹൂ |
| ്യ | റ്യ | ല്യ | വ്യ | ശ്യ | ഷ്യ | സ്യ | ഹ്യ |
| െ | റെ | ലെ | വെ | ശെ | ഷെ | സെ | ഹെ |
| േ | റേ | ലേ | വേ | ശേ | ഷേ | സേ | ഹേ |
| ൈ | രൈ | ലൈ | വൈ | ശൈ | ഷൈ | സൈ | ഹൈ |
| ൊ | റൊ | ലൊ | വൊ | ശൊ | ഷൊ | സൊ | ഹൊ |
| ോ | റോ | ലോ | വോ | ശോ | ഷോ | സോ | ഹോ |
| ൗ | റൗ | ലൗ | വൗ | ശൗ | ഷൗ | സൗ | ഹൗ |

| | | |
|----|-----|-----|
| | ള | ഴ |
| ാ | ളാ | ഴാ |
| ി | ളി | ഴി |
| ീ | ളീ | ഴീ |
| ു | ളു | ഴു |
| ൂ | ളൂ | ഴൂ |
| ്യ | ള്യ | ഴ്യ |
| െ | ളെ | ഴെ |
| േ | ളേ | ഴേ |
| ൈ | രളൈ | രഴൈ |
| ൊ | രളൊ | രഴൊ |
| ോ | രളോ | രഴോ |
| ൗ | രളൗ | രഴൗ |
| | ലൂൗ | ഴൂൗ |

8.3.2. CM+ANUSWARAM: VALID

| | ക | ഖ | ഗ | ഘ | ങ | ച | ഛ | ജ | ത | ത |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| ാം | കാം | ഖാം | ഗാം | ഘാം | ങാം | ചാം | ഛാം | ജാം | താം | താം |
| ിം | കിം | ഖിം | ഗിം | ഘിം | ങിം | ചിം | ഛിം | ജിം | തിം | തിം |
| ീം | കീം | ഖീം | ഗീം | ഘീം | ങീം | ചീം | ഛീം | ജീം | തീം | തീം |
| ും | കും | ഖും | ഗും | ഘും | ങും | ചും | ഛും | ജും | തും | തും |
| ൂം | കൂം | ഖൂം | ഗൂം | ഘൂം | ങൂം | ചൂം | ഛൂം | ജൂം | തൂം | തൂം |
| ്യം | കൃം | ഖൃം | ഗൃം | ഘൃം | ങൃം | ചൃം | ഛൃം | ജൃം | ത്യം | ത്യം |
| െം | കെ | ഖെ | ഗെ | ഘെ | ങെ | ചെ | ഛെ | ജെ | തെ | തെ |
| േം | കേ | ഖേ | ഗേ | ഘേ | ങേ | ചേ | ഛേ | ജേ | തേ | തേ |
| ൈം | കൈ | ഖൈ | ഗൈ | ഘൈ | ങൈ | ചൈ | ഛൈ | ജൈ | തൈ | തൈ |
| ൊം | കൊ | ഖൊ | ഗൊ | ഘൊ | ങൊ | ചൊ | ഛൊ | ജൊ | തൊ | തൊ |
| ോം | കോ | ഖോ | ഗോ | ഘോ | ങോ | ചോ | ഛോ | ജോ | തോ | തോ |
| ൗം | കൗ | ഖൗ | ഗൗ | ഘൗ | ങൗ | ചൗ | ഛൗ | ജൗ | തൗ | തൗ |

| | S | O | ഡ | ഘ | ണ | ത | ഥ | ദ | ധ | ന |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ാം | ടാം | ഠാം | ഡാം | ഘാം | ണാം | താം | ഥാം | ദാം | ധാം | നാം |
| ിം | ടിം | ഠിം | ഡിം | ഘിം | ണിം | തിം | ഥിം | ദിം | ധിം | നിം |
| ീം | ടീം | ഠീം | ഡീം | ഘീം | ണീം | തീം | ഥീം | ദീം | ധീം | നീം |
| ും | ടും | ഠും | ഡും | ഘും | ണും | തും | ഥും | ദും | ധും | നും |
| ൂം | ടൂം | ഠൂം | ഡൂം | ഘൂം | ണൂം | തൂം | ഥൂം | ദൂം | ധൂം | നൂം |
| ്യം | ടൃം | ഠൃം | ഡൃം | ഘൃം | ണൃം | തൃം | ഥൃം | ദൃം | ധൃം | നൃം |
| െം | ടെ | ഠെ | ഡെ | ഘെ | ണെ | തെ | ഥെ | ദെ | ധെ | നെ |
| േം | ടേ | ഠേ | ഡേ | ഘേ | ണേ | തേ | ഥേ | ദേ | ധേ | നേ |
| ൈം | ടൈ | ഠൈ | ഡൈ | ഘൈ | ണൈ | തൈ | ഥൈ | ദൈ | ധൈ | നൈ |
| ൊം | ടൊ | ഠൊ | ഡൊ | ഘൊ | ണൊ | തൊ | ഥൊ | ദൊ | ധൊ | നൊ |
| ോം | ടോ | ഠോ | ഡോ | ഘോ | ണോ | തോ | ഥോ | ദോ | ധോ | നോ |
| ൗം | ടൗ | ഠൗ | ഡൗ | ഘൗ | ണൗ | തൗ | ഥൗ | ദൗ | ധൗ | നൗ |

| | | | | | | | |
|--|---|---|---|---|---|---|---|
| | പ | ഫ | ബ | ഭ | മ | യ | ര |
|--|---|---|---|---|---|---|---|

| | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|
| ാ | പ | ഫ | ബ | ഭ | മ | യ | ര |
| ി | പി | ഫി | ബി | ഭി | മി | യി | രി |
| ീ | പീ | ഫീ | ബീ | ഭീ | മീ | യീ | രീ |
| ു | പു | ഫു | ബു | ഭു | മു | യു | രു |
| ൂ | പൂ | ഫൂ | ബൂ | ഭൂ | മൂ | യൂ | രൂ |
| ്യ | പ്യ | ഫ്യ | ബ്യ | ഭ്യ | മ്യ | യ്യ | ര്യ |
| െ | പെ | ഫെ | ബെ | ഭെ | മെ | യെ | രെ |
| േ | പേ | ഫേ | ബേ | ഭേ | മേ | യേ | രേ |
| ൈ | പൈ | ഫൈ | ബൈ | ഭൈ | മൈ | യൈ | രൈ |
| ൊ | പൊ | ഫൊ | ബൊ | ഭൊ | മൊ | യൊ | രൊ |
| ോ | പോ | ഫോ | ബോ | ഭോ | മോ | യോ | രോ |
| ൗ | പൗ | ഫൗ | ബൗ | ഭൗ | മൗ | യൗ | രൗ |
| | റ | ല | വ | ശ | ഷ | സ | ഹ |
| ാ | റാ | ലാ | വാ | ശാ | ഷാ | സാ | ഹാ |
| ി | റി | ലി | വി | ശി | ഷി | സി | ഹി |
| ീ | രീ | ലീ | വീ | ശീ | ഷീ | സീ | ഹീ |
| ു | റു | ലു | വു | ശു | ഷു | സു | ഹു |
| ൂ | റൂ | ലൂ | വൂ | ശൂ | ഷൂ | സൂ | ഹൂ |
| ്യ | റ്യ | ല്യ | വ്യ | ശ്യ | ഷ്യ | സ്യ | ഹ്യ |
| െ | റെ | ലെ | വെ | ശെ | ഷെ | സെ | ഹെ |
| േ | രേ | ലേ | വേ | ശേ | ഷേ | സേ | ഹേ |
| ൈ | രൈ | ലൈ | വൈ | ശൈ | ഷൈ | സൈ | ഹൈ |
| ൊ | റൊ | ലൊ | വൊ | ശൊ | ഷൊ | സൊ | ഹൊ |
| ോ | റോ | ലോ | വോ | ശോ | ഷോ | സോ | ഹോ |
| ൗ | റൗ | ലൗ | വൗ | ശൗ | ഷൗ | സൗ | ഹൗ |

| | | |
|---|----|----|
| | ള | ഴ |
| ാ | ളാ | ഴാ |
| ി | ളി | ഴി |

| | ക | ഖ | ഗ | ഘ | ങ | ച | ഛ | ജ | ഝ | ഞ |
|---|---|---|---|---|---|---|---|---|---|---|
| ല | ല | X | X | X | X | X | X | X | X | X |
| വ | X | X | X | X | X | X | X | X | X | X |
| ര | X | X | X | X | X | ര | X | X | X | X |

| | ക | ഖ | ഗ | ഘ | ങ | ച | ഛ | ജ | ഝ | ഞ |
|---|---|---|---|---|---|---|---|---|---|---|
| ഷ | ഷ | X | X | X | X | X | X | X | X | X |
| സ | സ | X | X | X | X | X | X | X | X | X |
| ഹ | X | X | X | X | X | X | X | X | X | X |
| ഇ | X | X | X | X | X | X | X | X | X | X |
| ഉ | ഉ | X | X | X | X | | X | X | X | X |

[illegible]

| | | | | | | | | | | |
|---|-----|-----|---|---|-----|-----|-----|-----|-----|-----|
| | S | O | ഡ | ഡ | ണ | ത | ഥ | ഭ | ധ | ന |
| ഭ | X | X | X | X | X | X | X | X | X | X |
| ധ | X | X | X | X | X | X | X | X | X | X |
| ന | X | X | X | X | X | ന്ത | ന്ഥ | ന്ഭ | ന്ധ | ന്ന |
| പ | X | X | X | X | X | പ്ത | X | X | X | പ്ന |
| ഫ | X | X | X | X | X | X | X | X | X | X |
| ബ | X | X | X | X | X | X | X | X | X | X |
| ഭ | X | X | X | X | X | X | X | X | X | X |
| മ | X | X | X | X | X | X | X | X | X | X |
| യ | X | X | X | X | X | യ്ത | X | X | X | X |
| ര | X | X | X | X | X | X | X | X | X | X |
| റ | X | X | X | X | X | X | X | X | X | X |
| ല | X | X | X | X | X | X | X | X | X | X |
| വ | X | X | X | X | X | X | X | X | X | X |
| ശ | X | X | X | X | X | X | X | X | X | X |
| ഷ | ഷ്ട | ഷ്ഠ | X | X | ഷ്ണ | X | X | X | X | ഷ്ന |
| സ | X | X | X | X | X | സ്ത | X | X | X | സ്ന |
| ഹ | X | X | X | X | X | X | X | X | X | ഹ്ന |
| ഋ | X | X | X | X | X | X | X | X | X | X |
| ൠ | X | X | X | X | X | ൠ്ത | X | X | X | X |

| | പ | ഫ | ബ | ഭ | മ | യ | ര | റ | ല | വ |
|---|---|---|---|---|---|-----|-----|-----|----|-----|
| ക | X | X | X | X | X | ക്യ | കൃ | ക്ര | കി | കു |
| ഖ | X | X | X | X | X | ഖ്യ | ഖൃ | ഖ്ര | ഖി | ഖു |
| ഗ | X | X | X | X | X | ഗ്യ | ഗൃ | ഗ്ര | ഗി | ഗു |
| ഘ | X | X | X | X | X | ഘ്യ | ഘൃ | ഘ്ര | ഘി | ഘു |
| ങ | X | X | X | X | X | X | x | x | X | X |
| ച | X | X | X | X | X | ച്യ | ചൃ | ച്ര | ചി | ചു |
| ഛ | X | X | X | X | X | ഛ്യ | ഛൃ | ഛ്ര | ഛി | ഛു |
| ജ | X | X | X | X | X | ജ്യ | ജൃ | ജ്ര | ജി | ജു |
| ട | X | X | X | X | X | X | ട്ര | ട്ര | X | ട്ട |
| ഠ | X | X | X | X | X | X | x | x | X | ഠ |
| ഡ | X | X | X | X | X | ഡ്യ | ഡൃ | ഡ്ര | X | ഡു |
| ഢ | X | X | X | X | X | ഢ്യ | ഢൃ | ഢ്ര | X | ഢു |

| | പ | ഫ | ബ | ഭ | മ | യ | ര | റ | ല | വ |
|---|---|---|---|----|-----|-----|----|-----|----|-----|
| ണ | X | X | X | X | ണ്മ | ണ്യ | ണ | ണ | X | ണ്വ |
| ത | X | X | X | തഭ | തമ | ത്യ | തൃ | ത്ര | തി | തു |

| | | | | | | | | | | |
|---|---|---|---|---|---|-----|---|---|----|----|
| ഥ | X | X | X | X | X | ഥ്യ | ഥ | ഥ | X | ഥ് |
| ഭ | X | X | X | X | X | ഭ്യ | ഭ | ഭ | X | ഭ് |
| ധ | X | X | X | X | X | ധ്യ | ധ | ധ | X | ധ് |
| ന | X | X | X | X | ന | ന്യ | X | X | X | ന് |
| പ | പ | X | X | X | X | പ്യ | പ | പ | പ് | പ് |
| ഫ | X | X | X | X | X | ഫ്യ | ഫ | ഫ | ഫ് | ഫ് |
| ബ | X | X | ബ | X | X | ബ്യ | ബ | ബ | ബ് | ബ് |
| ഭ | X | X | X | X | X | ഭ്യ | ഭ | ഭ | X | ഭ് |
| മ | മ | X | X | X | മ | മ്യ | മ | മ | മ് | മ് |
| യ | യ | X | X | X | യ | യ്യ | X | X | X | യ് |
| ര | X | X | X | X | X | ര്യ | X | X | X | ര് |
| റ | X | X | X | X | X | റ | X | റ | X | X |
| ല | ല | X | X | X | X | ല്യ | X | X | ല് | ല് |
| വ | X | X | X | X | X | വ്യ | വ | വ | വ് | വ് |

| | പ | ഫ | ബ | ഭ | മ | യ | ര | റ | ല | വ |
|---|-----|---|---|---|-----|-----|---|-----|-----|-----|
| ശ | X | X | X | X | ശ്ശ | ശ്യ | ശ | ശ്ര | ശ്ശ | ശ്വ |
| ഷ | X | X | X | X | ഷ്ശ | ഷ്യ | ഷ | ഷ്ര | X | ഷ്വ |
| സ | സ്സ | X | X | X | സ്സ | സ്യ | സ | സ്ര | സ്സ | സ്വ |
| ഹ | X | X | X | X | ഹ്ശ | ഹ്യ | ഹ | ഹ്ര | ഹ്ശ | ഹ്വ |
| ള | X | X | X | X | X | ള്യ | X | X | X | ള്വ |
| ഴ | X | X | X | X | X | ഴ്യ | X | X | X | ഴ്വ |

| | ശ | ഷ | സ | ഹ | ള | ഴ |
|---|---|-----|---|---|-------|---|
| ക | X | ക്ഷ | X | X | ക്ക്ഷ | X |
| ഖ | X | X | X | X | ഖ്ഖ | X |
| ഗ | X | X | X | X | ഗ്ഗ | X |
| ഘ | X | X | X | X | ഘ്ഘ | X |
| ങ | X | X | X | X | X | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| ച | X | X | X | X | ച | X |
| ഛ | X | X | X | X | ഛ | X |
| ജ | X | X | X | X | ജ | X |
| ട | X | X | X | X | X | X |
| ഠ | X | X | X | X | X | X |
| ട | X | X | X | X | X | X |
| ഠ | X | X | X | X | X | X |
| ഡ | X | X | X | X | X | X |
| ഢ | X | X | X | X | X | X |
| ണ | X | X | X | X | X | X |
| ത | X | X | ത | X | ത | X |
| ഥ | X | X | X | X | X | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| | ശ | ഷ | സ | ഹ | ള | ഴ |
| ഭ | X | X | X | X | X | X |
| ധ | X | X | X | X | X | X |
| ന | X | X | X | X | X | X |
| പ | X | X | X | X | പ | X |
| ഫ | X | X | X | X | ഫ | X |
| ബ | X | X | X | X | ബ | X |
| ഭ | X | X | X | X | X | X |

| | | | | | | |
|---|----|---|---|---|----|---|
| ଅ | X | X | X | X | ୨ | X |
| ଉ | X | X | X | X | X | X |
| ଊ | X | X | X | X | X | X |
| ଋ | X | X | X | X | X | X |
| ୠ | X | X | X | X | X | X |
| ଏ | X | X | X | X | ୩ | X |
| ଐ | ୧୧ | X | X | X | ୪ | X |
| ଓ | X | X | X | X | X | X |
| ଔ | X | X | ଝ | X | ୫ | X |
| ଋ | X | X | X | X | X | X |
| ୠ | X | X | X | X | X | X |
| ଌ | X | X | X | X | ୭୭ | X |
| ୡ | X | X | ୩ | X | X | X |

8.4.2 CHILLU + CONSONANT CLUSTERS

[illegible]

| | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|
| ശ് | X | X | X | X | X | X | X | X | X | X |
|----|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|
| | S | O | ഡ | ഘ | ണ | ത | ഥ | ഭ | ധ | ന |
| ട് | X | X | X | X | X | X | X | X | X | X |
| ല് | X | X | X | X | X | X | X | X | X | X |
| ര് | X | X | X | X | X | X | X | X | X | X |
| ന് | X | X | X | X | X | X | X | X | X | X |
| ശ് | X | X | X | X | X | X | X | X | X | X |

| | | | | | | | | | | |
|----|---|---|---|---|---|---|---|-----|---|---|
| | പ | ഫ | ബ | ഭ | മ | യ | ര | റ | ല | വ |
| ട് | X | X | X | X | X | X | X | ന്റ | X | X |
| ല് | X | X | X | X | X | X | X | X | X | X |
| ര് | X | X | X | X | X | X | X | X | X | X |
| ന് | X | X | X | X | X | X | X | X | X | X |
| ശ് | X | X | X | X | X | X | X | X | X | X |

| | | | | | | |
|----|---|---|---|---|---|---|
| | ശ | ഷ | സ | ഹ | ള | ഴ |
| ന് | X | X | X | X | X | X |
| ന് | X | X | X | X | X | X |
| ര് | X | X | X | X | X | X |
| ല് | X | X | X | X | X | X |

| | | | | | | |
|----|---|---|---|---|---|---|
| രൂ | x | x | x | x | x | x |
|----|---|---|---|---|---|---|

8.4.3 CONSONANT + CHILLU CHARACTERS

| | ന | ല | ര | ണ | ള |
|---|---|---|---|---|---|
| ക | x | x | x | x | x |
| ഖ | x | x | x | x | x |
| ഗ | x | x | x | x | x |
| ഘ | x | x | x | x | x |
| ങ | x | x | x | x | x |
| ച | x | x | x | x | x |
| ഛ | x | x | x | x | x |
| ജ | x | x | x | x | x |
| ഝ | x | x | x | x | x |
| ഞ | x | x | x | x | x |
| ട | x | x | x | x | x |
| ഠ | x | x | x | x | x |
| ഡ | x | x | x | x | x |
| ഢ | x | x | x | x | x |
| ണ | x | x | x | x | x |
| ത | x | x | x | x | x |
| | ന | ല | ര | ണ | ള |
| ഥ | x | x | x | x | x |
| ഭ | x | x | x | x | x |
| ധ | x | x | x | x | x |
| ന | x | x | x | x | x |
| പ | x | x | x | x | x |
| ഫ | x | x | x | x | x |
| ബ | x | x | x | x | x |

| | | | | | |
|---|----|----|----|----|----|
| ഭ | X | X | X | X | X |
| ച | X | X | X | X | X |
| യ | X | X | X | X | X |
| ര | X | X | X | X | X |
| റ | X | X | X | X | X |
| ല | X | X | X | X | X |
| വ | X | X | X | X | X |
| ശ | X | X | X | X | X |
| ഷ | X | X | X | X | X |
| സ | X | X | X | X | X |
| ഹ | X | X | X | X | X |
| | ന് | ല് | ര് | ണ് | ള് |
| ള | X | X | X | X | X |
| ഴ | X | X | X | X | X |

8.4.4 CONSONANT+CONSONANT+CONSONANT CLUSTERS (CHCHC)

These are not very common and you will have to identify them yourself. Please provide the shapes generated out in this combination. These must be unique. Or else it will be assumed that the first Consonant takes the half form and is apposed to the next two consonants already defined in the set CHC above.

(ച) ച്യ (ക) ക്യ (സ) സ്യ
 (ല) ല്യ (ര) ര്യ (വ) വ്യ (ശ) ശ്യ (ഷ) ഷ്യ

8.4.5. CONSONANT+CONSONANT+CONSONANT+CONSONANT CLUSTERS: CHCHCHC

These are very rare and you will have to identify them yourself. Please provide the shapes generated out in this combination. These must be unique. Or else it will be assumed that the first Consonant takes the half form and is apposed to the next three consonants already defined in the set CHCHC above

For example, ന ് ത ് ര ് യ -> ന്ത്യ

ന്ത്യ ന്ത്യ

Noe these are typed as

ന്ത്യ ന്ത്യ

9. COLLATION ORDER OF THE CHARACTERS: LEXICAL / DICTIONARY SORTING ORDER

List all the basic characters of the language in the expected sort-order. A sample sort order is provided below. Please provide an exhaustive collation order for your language. If there is any change in the sort order, please specify:

Sorting order is approved by govt. of kerala in G.O.(MS)No:24/2001/ITD/22.11.01.



It is published in the extra ordinary Gazette dated 18.12.2001. Report of the committee on Malayalam character Encoding and Keyboard layout standardization – See chapter 5. (Copy Enclosed).

10. HOMOGRAPHIC IDENTITIES WITHIN THE CHARACTER SET.

Please provide a list of look alike. Each set of homographs will be proposed as a pair. In extreme cases even three homographs are permissible Add more columns if so required.

Unique characters

| HOMOGRAPH1 | HOMOGRAPH2 | HOMOGRAPH3 |
|----------------|------------|------------|
| ൧ ¹ | ൧ | |
| ൨ ² | ൨ | |
| ൩ | ൩ | |
| ൦ ³ | ൦ | |
| ൪ ⁴ | ൪ | |
| ൫ ⁵ | ൫ | |

1. Allograph of ,  mathra of
2. No. '9' and chillu '  '
3. Zero, consonant
4. One is Au, other is length mark in
5. one short u, other long u

Conjunct characters.

| COMPOSING CONSONANTS | RESULTING HOMOGRAPH | COMPOSING CONSONANTS | RESULTING HOMOGRAPH |
|----------------------|---------------------|----------------------|---------------------|
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |
| യ്യാ | യ്യ | യ്യാ | യ്യ |

11.Compliance with Unicode.

- Is the character set compliant with Unicode: YES
- If not identify the characters which should be proposed to the Unicode consortium with substantiating evidence.

12.ZWJ/ZWNJ

Please provide all such cases where you feel that ZWJ/ZWNJ is a must.


NONE

UNICODE 5.1. CODE-PAGE FOR MALAYALAM SCRIPT IS APPENDED BELOW.

0D00

Malayalam

0D7F

| | 0D0 | 0D1 | 0D2 | 0D3 | 0D4 | 0D5 | 0D6 | 0D7 |
|---|---|---|--|---|---|---|---|--|
| 0 |  | എ <small>0D10</small> | റ <small>0D20</small> | ര <small>0D30</small> | ീ <small>0D40</small> |  | ജ <small>0D60</small> | ധ <small>0D70</small> |
| 1 |  |  | ഡ <small>0D21</small> | റ <small>0D31</small> | ു <small>0D41</small> |  | തെ <small>0D61</small> | ന <small>0D71</small> |
| 2 | ം <small>0D02</small> | ക <small>0D12</small> | ഡ <small>0D22</small> | ല <small>0D32</small> | ൂ <small>0D42</small> |  | ം <small>0D62</small> | നം <small>0D72</small> |
| 3 | ഃ <small>0D03</small> | ഓ <small>0D13</small> | ണ <small>0D23</small> | ഉ <small>0D33</small> | ്യ <small>0D43</small> |  | ം <small>0D63</small> | റ <small>0D73</small> |
| 4 |  | ൗ <small>0D14</small> | ത <small>0D24</small> | ഴ <small>0D34</small> | ൃ <small>0D44</small> |  |  | ൽ <small>0D74</small> |
| 5 | അ <small>0D05</small> | ക <small>0D15</small> | ഥ <small>0D25</small> | വ <small>0D35</small> |  |  |  | ൻ <small>0D75</small> |
| 6 | ആ <small>0D06</small> | ഖ <small>0D16</small> | ഭ <small>0D26</small> | ശ <small>0D36</small> | െ <small>0D46</small> |  | റ <small>0D66</small> |  |
| 7 | ഇ <small>0D07</small> | ഗ <small>0D17</small> | ധ <small>0D27</small> | ഷ <small>0D37</small> | ഓ <small>0D47</small> | ൗ <small>0D47</small> | ഥ <small>0D67</small> |  |
| 8 | ഈ <small>0D08</small> | ഘ <small>0D18</small> | ന <small>0D28</small> | സ <small>0D38</small> | ൈ <small>0D48</small> |  | റ <small>0D68</small> |  |
| 9 | ഉ <small>0D09</small> | ബ <small>0D19</small> |  | ഹ <small>0D39</small> |  |  | ന <small>0D69</small> | ന <small>0D79</small> |
| A | ഊ <small>0D0A</small> | ച <small>0D1A</small> | പ <small>0D2A</small> |  | ൊ <small>0D4A</small> |  | ർ <small>0D6A</small> | ൻ <small>0D7A</small> |
| B | ഈ <small>0D0B</small> | ഛ <small>0D1B</small> | ഫ <small>0D2B</small> |  | ോ <small>0D4B</small> |  | ർ <small>0D6B</small> | ൻ <small>0D7B</small> |
| C | ൺ <small>0D0C</small> | ജ <small>0D1C</small> | ബ <small>0D2C</small> |  | ൌ <small>0D4C</small> |  | ന <small>0D6C</small> | ർ <small>0D7C</small> |
| D |  | ഡ <small>0D1D</small> | ഭ <small>0D2D</small> | ഴ <small>0D3D</small> | ൃ <small>0D4D</small> |  | റ <small>0D6D</small> | ൽ <small>0D7D</small> |
| E | എ <small>0D0E</small> | ഞ <small>0D1E</small> | മ <small>0D2E</small> | ാ <small>0D3E</small> |  |  | വ <small>0D6E</small> | ൾ <small>0D7E</small> |
| F | എ <small>0D0F</small> | ട <small>0D1F</small> | യ <small>0D2F</small> | ി <small>0D3F</small> |  |  | ൻ <small>0D6F</small> | ക <small>0D7F</small> |



0D02

Based on ISCII 1988

Various signs


0D02 ൠ MALAYALAM SIGN ANUSVARA
0D03 ൡ MALAYALAM SIGN VISARGA

Independent vowels

0D05 അ MALAYALAM LETTER A
0D06 ആ MALAYALAM LETTER AA
0D07 ഇ MALAYALAM LETTER I
0D08 ഉ MALAYALAM LETTER II
0D09 ഊ MALAYALAM LETTER U
0D0A ഊ MALAYALAM LETTER UU
0D0B ഋ MALAYALAM LETTER VOCALIC R
0D0C ൠ MALAYALAM LETTER VOCALIC L
0D0D  <reserved>
0D0E എ MALAYALAM LETTER E
0D0F ഐ MALAYALAM LETTER EE
0D10 ഐ MALAYALAM LETTER AI
0D11  <reserved>
0D12 ഓ MALAYALAM LETTER O
0D13 ഔ MALAYALAM LETTER OO
0D14 ഔ MALAYALAM LETTER AU

Consonants

Alternate romanizations are shown as aliases for some letters to clarify their identity.

0D15 ക MALAYALAM LETTER KA
0D16 ഖ MALAYALAM LETTER KHA
0D17 ഗ MALAYALAM LETTER GA
0D18 ങ MALAYALAM LETTER GHA
0D19 ഞ MALAYALAM LETTER NGGA
0D1A ച MALAYALAM LETTER CA
= cha
0D1B ച്ച MALAYALAM LETTER CHA
= chha
0D1C ജ MALAYALAM LETTER JA
0D1D ഴ MALAYALAM LETTER JHA
0D1E ണ MALAYALAM LETTER NYA
= nha
0D1F ട MALAYALAM LETTER TTA
= ta
0D20 ഠ MALAYALAM LETTER TTTHA
= ttha
0D21 ഡ MALAYALAM LETTER DDA
= hard da
0D22 ള MALAYALAM LETTER DDHA
= hard dda
0D23 ണ MALAYALAM LETTER NNA
= hard na
0D24 ഡ MALAYALAM LETTER TA
= tha
0D25 ഴ MALAYALAM LETTER THA
= ttha
0D26 ള MALAYALAM LETTER DA
= soft da
0D27 ഴ MALAYALAM LETTER DHA
= soft dda
0D28 ന MALAYALAM LETTER NA
0D29  <reserved>
0D2A വ MALAYALAM LETTER PA
0D2B ഡ MALAYALAM LETTER PHA
0D2C ഴ MALAYALAM LETTER BA
0D2D ഴ MALAYALAM LETTER BHA
0D2E മ MALAYALAM LETTER MA
0D2F ഴ MALAYALAM LETTER YA

Malayalam


0D57

0D30 ര MALAYALAM LETTER RA
0D31 റ MALAYALAM LETTER RRA
0D32 ല MALAYALAM LETTER LA
0D33 ഴ MALAYALAM LETTER LLA
0D34 ഴ MALAYALAM LETTER LLLA
= zha
0D35 ഴ MALAYALAM LETTER VA
0D36 ശ MALAYALAM LETTER SHA
= soft sha
0D37 ഴ MALAYALAM LETTER SSA
= sha
0D38 സ MALAYALAM LETTER SA
0D39 ഴ MALAYALAM LETTER HA

Addition for Sanskrit

0D3D ഴ MALAYALAM SIGN AVAGRAHA
= praslesham

Dependent vowel signs










0D3E ഴ MALAYALAM VOWEL SIGN AA
0D3F ഴ MALAYALAM VOWEL SIGN I
0D40 ഴ MALAYALAM VOWEL SIGN II
0D41 ഴ MALAYALAM VOWEL SIGN U
0D42 ഴ MALAYALAM VOWEL SIGN UU
0D43 ഴ MALAYALAM VOWEL SIGN VOCALIC R
0D44 ഴ MALAYALAM VOWEL SIGN VOCALIC RR
0D45  <reserved>
0D46 ഴ MALAYALAM VOWEL SIGN E
• stands to the left of the consonant
0D47 ഴ MALAYALAM VOWEL SIGN EE
• stands to the left of the consonant
0D48 ഴ MALAYALAM VOWEL SIGN AI
• stands to the left of the consonant

Two-part dependent vowel signs

These vowel signs have glyph pieces which stand on both sides of the consonant; they follow the consonant in logical order, and should be handled as a unit for most processing.

0D4A ഴ MALAYALAM VOWEL SIGN O
= 0D46 ഴ 0D3E ഴ
0D4B ഴ MALAYALAM VOWEL SIGN OO
= 0D47 ഴ 0D3E ഴ
0D4C ഴ MALAYALAM VOWEL SIGN AU
• archaic form of the /au/ dependent vowel
→ 0D57 ഴ malayalam au length mark
= 0D46 ഴ 0D57 ഴ

Various signs

0D4D ഴ MALAYALAM SIGN VIRAMA
= chandrakkala (the preferred name)
= vowel half-u
0D4E  <reserved>
0D4F  <reserved>
0D50  <reserved>
0D51  <reserved>
0D52  <reserved>
0D53  <reserved>
0D54  <reserved>
0D55  <reserved>
0D56  <reserved>
0D57 ഴ MALAYALAM AU LENGTH MARK
• used alone to write the /au/ dependent vowel in modern texts
→ 0D4C ഴ malayalam vowel sign au

0D60

Malayalam

0D7F

Additional vowels for Sanskrit

0D60 ൠ MALAYALAM LETTER VOCALIC RR
0D61 ൡ MALAYALAM LETTER VOCALIC LL

Dependent vowels

0D62 ൢ MALAYALAM VOWEL SIGN VOCALIC L
0D63 ൣ MALAYALAM VOWEL SIGN VOCALIC LL

Reserved

For viram punctuation, use the generic Indic 0964 and 0965.

0D64 ൤ <reserved>
→ 0964 | devanagari danda
0D65 ൥ <reserved>
→ 0965 || devanagari double danda

Digits

0D66 ൦ MALAYALAM DIGIT ZERO
0D67 ൧ MALAYALAM DIGIT ONE
0D68 ൨ MALAYALAM DIGIT TWO
0D69 ൩ MALAYALAM DIGIT THREE
0D6A ൪ MALAYALAM DIGIT FOUR
0D6B ൫ MALAYALAM DIGIT FIVE
0D6C ൬ MALAYALAM DIGIT SIX
0D6D ൭ MALAYALAM DIGIT SEVEN
0D6E ൮ MALAYALAM DIGIT EIGHT
0D6F ൯ MALAYALAM DIGIT NINE

Malayalam numerics

0D70 ൰ MALAYALAM NUMBER TEN
0D71 ൱ MALAYALAM NUMBER ONE HUNDRED
0D72 ൲ MALAYALAM NUMBER ONE THOUSAND

Fractions

0D73 ൳ MALAYALAM FRACTION ONE QUARTER
0D74 ൴ MALAYALAM FRACTION ONE HALF
0D75 ൵ MALAYALAM FRACTION THREE QUARTERS

Date mark

0D79 ൶ MALAYALAM DATE MARK

Chillu letters

0D7A ൷ MALAYALAM LETTER CHILLU NN
0D7B ൸ MALAYALAM LETTER CHILLU N
0D7C ൹ MALAYALAM LETTER CHILLU RR
• historically derived from the full letter ra
• also used for chillu r
0D7D ൺ MALAYALAM LETTER CHILLU L
• historically derived from the full letter ta
• used for chillu t and chillu d
0D7E ൻ MALAYALAM LETTER CHILLU LL
0D7F ർ MALAYALAM LETTER CHILLU K