

# Standard Bharati Braille Codes

સ્ટાર્ટ બેન્ડ કોડ્સ  
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with Unicode Mapped Chart



National Institute for the Empowerment of  
Persons with Visual Disabilities (Divyangjan)  
116, Rajpur Road, Dehradun-248001



Department of Empowerment of  
Persons with Disabilities (Divyangjan)  
Ministry of Social Justice & Empowerment, Govt, of India

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# Introduction to Braille and Bharati Braille

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Persons with visual impairment use Braille code for reading and writing with the help of traditional and modern devices. Braille is a script of raised dots. Persons with visual impairment read by moving their fingertips over the lines of embossed Braille dots.

Louis Braille, a French educator and inventor, developed the revolutionary tactile writing system known as Braille. Born in 1809, Louis Braille lost his sight at a young age due to an accident. Despite his blindness, he excelled in academics and sought to create a better method for the visually impaired to read and write. Drawing inspiration from a military code used for silent communication, he developed the Braille system only at the age of 15. This system uses patterns of raised dots to represent letters, numbers, and punctuation, allowing blind and visually impaired individuals to read through touch. The Braille system has become a fundamental tool for accessibility and literacy for people with visual impairments worldwide.

To begin with, it is essential to understand that Braille is a code and not an independent language. Each letter or the alphabet is represented by a unique Braille character. It is fitting to highlight the key features of this system. The Braille system is constructed from six raised dots arranged in two vertical lines in rectangular spaces known as Braille cells. Each combination of dots and blank spaces occupies a cell. The six dots are organized in two columns (three dots in each vertical column) to form the Braille cell. To assist in identifying the positions of dots that form various Braille characters, the dot positions in a cell are numbered: Dots 1, 2, and 3 are downward on the left, while Dots 4, 5, and 6 are downward on the right.

The Braille cells are the fundamental building block of Braille system. These 6 dots of the Braille cell forms 63 different combinations and represents different letters, symbols or characters. For the sake of symmetry and ease of learning, Louis Braille grouped the 63 symbols in symmetrical 7 lines. In the long run this arrangement of 7 lines evoked more controversy of modifying, re-modifying the script later on as long as it was not universally accepted.

Braille Cell

1	●	●	4
2	●	●	5
3	●	●	6

The first line consists of ten symbols formed of top four dots one two, four, five (⠼⠼).

1	⠼	⠼	⠼	⠼	⠼	⠼	⠼	⠼	⠼	⠼
---	---	---	---	---	---	---	---	---	---	---

Dot three (⠼) is added to each symbol of the first line serially to make the second line.

2	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼	⠼⠼
---	----	----	----	----	----	----	----	----	----	----

Line three is formed by serially adding dot number three and six (⠼⠼) to the each symbol of the first line.

3	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼	⠼⠼⠼
---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Dot six (⠼⠼) is serially added to the each character of the first line for making fourth line.

4	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼	⠼⠼⠼⠼
---	------	------	------	------	------	------	------	------	------	------

Line number five repeats the characters of the first line in the lower position of the cell using dot number two, three, five, six (⠼⠼⠼).

5	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼
---	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Sixth line consists of six symbols which is obtained by making Braille combinations of dots out of the dot number three, four, five, six (⠼⠼⠼⠼).

6	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼
---	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

Line seven comprising seven characters formed by dot number four, five, six (⠼⠼⠼).

7	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼	⠼⠼⠼⠼⠼⠼⠼
---	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------

## Braille Grades

Braille comes in a variety of “grades” and variations. There are three grades of braille:

- **Grade 1:-** Braille Grade 1 consists of the Braille alphabet, numbers, and punctuation, which correspond directly to their printed counterparts.
- **Grade 2:-** Grade 2 Braille includes the same letters and punctuation as Grade 1, along with contractions and abbreviations for frequently used words and letter combinations. These contractions help in saving space and time. Grade 2 also speed up the process of reading and writing in Braille. Most Braille materials, such as books and other documents are written in Grade 2 Braille. These abbreviations are also employed to minimize the amount of paper required for printing/embossing Braille

books and to simplify the reading process.

- **Grade 3:-** Grade 3 Braille is mainly used for personal correspondence, diaries, and notes. It functions as a form of shorthand where whole words are abbreviated to just a few letters.

## Braille English Alphabets

a ::	f ::	k ::	p ::	u ::	z ::
b ::	g ::	l ::	q ::	v ::	
c ::	h ::	m ::	r ::	w ::	
d ::	i ::	n ::	s ::	x ::	
e ::	j ::	o ::	t ::	y ::	

After assigning symbols (63 Braille combinations of dots) to the letters of alphabets, remaining characters are used for punctuations and contractions. The same process is being adopted in case of Indian languages.

## Numbers in Braille:

- Cardinal numbers are represented by the letters of the first line (a, b, c, d, e, f, g, h, i, j) preceded by a numeric sign which represented by dot number Three, Four, Five, And Six (3456) (::):

Print Number Symbols	Braille Number Symbols
1.	:::
2.	:::
3.	:::
4.	:::
5.	:::
6.	:::
7.	:::
8.	:::
9.	:::
0.	:::

For example, 107 should be written in Braille as ::::::

- The numbers joined by the Hyphen (Braille dot 36) do not require a second numeral sign, until the Hyphen occurs at the end of a Braille line in which case figure/figures carried over must be preceded by the numeral signs.
- Ordinal numbers are formed by adding proper endings to the cardinal numbers. The mathematical comma (,) in Braille is represented by Dot 2 (1). Roman numerals should be preceded by the letter sign Dot 56 (::).
- The decimal point (.) is represented by the Braille sign Dot 46 (::). When a decimal fraction is connected to a whole number, the number sign Dot 3456 (::) is placed only before the whole number.

## Punctuations in Braille:

Punctuations	Print Symbols	Braille Dots
apostrophe	'	::
oblique stroke	/	::
Square bracket opening	[	::
Square bracket closing	]	::
colon	:	::
Comma	,	::
dash	--	.. ..
double dash	----	.. .. ..
ellipsis	...	.. .. ..
exclamation mark	!	::
hyphen	-	::
parenthesis, opening	(	::
parenthesis, closing	)	::
period/fullstop	.	::
question mark	?	::
quotation mark, double opening	"	::
quotation mark, double closing	"	::
quotation mark, inner opening	'	::

quotation mark, inner closing	,	⋮⋮
semicolon	;	⋮⋮

# Bharati Braille

Bharati Braille is the Braille script used for writing the languages of India. It was developed to standardize the various Braille scripts that were in use across the country before India's independence. Before India's independence, there were eleven different Braille scripts in use for various Indian languages. This diversity made it challenging for visually impaired individuals to communicate and learn across different regions. By 1951, a single national standard, Bharati Braille, was established. This standardization was crucial for creating a uniform system that could be used across the country. The standardization of Bharati Braille has made it easier for visually impaired individuals to access educational materials, official documents, and literature in their native languages. This inclusivity has played a significant role in their educational, social and economic integration. The development of new technologies, such as Braille translation software and Braille production devices, has further enhanced the accessibility and usability of Bharati Braille.

National Institute for Visually Handicapped - NIVH (Now, National Institute for the Empowerment of Persons with Visual Disabilities) was evolved from National Centre for the Blind in 1979 and activities related to Braille development were also taken up by the Institute. Braille Development Unit was also set up in the institute to undertake the developmental activities related to Braille. A supervisory body to oversee and enhance Braille development in India, the Braille Council of India (BCI) was established in the institute in 2008.

# **Rules of Transcription**

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1. All punctuation marks that appear in print are represented by their corresponding Braille symbols.
2. To indicate a new paragraph, the content should start in the third Braille cell of a new line. When it's important to save space, three blank spaces can be left within a line to signal the start of a new paragraph. If a paragraph ends at the last Braille cell of a line, the next paragraph should begin in the fourth Braille cell of the following line.
3. According to standard practice, the maximum number of Braille cells in a line should be used. To achieve this, words can be split between pages if necessary. Compound words can be divided at any syllable. When breaking a word at the end of a line, it should be divided between appropriate syllables. There should be no space left between the last syllable and the Hyphen (-) sign Dot 36 (:) that follows. A hyphen should never be placed at the beginning of a new line.
4. Dot 236 (:) signifies the start of a standard quotation ("), while Dot 356 (:) indicates its end ("). For inner quotations, two-space lower sign Dot 6, Dot 236 (::) is used to open ('), and Dot 356, Dot 3 (:::) is used to close ('). In printed text, the sequence of quotation marks may occasionally be reversed, but in Braille, single-space signs always represent outer quotation marks, and two-cell signs represent inner quotation marks.
5. When in ink print, a number or a letter is preceded or followed by a symbol or abbreviation of coinage, weight, measure or other special signs, corresponding Braille symbols or abbreviation, without the abbreviation point or plural, should be used and it may always be placed immediately before the letter or number to which it refers.
6. The fraction line is denoted by Dot 34 (:) and is used to separate the numerator from the denominator. In a mixed number, the fraction is connected to the whole number with a Hyphen Dot 36 (:), and the number sign Dot 3456 (:) is not placed before the fraction. The fraction should not be carried over to the start of a new line.
7. To represent an asterisk (\*) in Braille, use Dot 35 (:::) twice without spaces. This can also stand for other reference symbols found in print. Leave a space before and after the asterisk. When paired with a footnote number, do not leave a space between the asterisk and the number. If asterisks appear within a printed line, use ellipses in Braille to indicate presumed omissions. For breaks in the text marked by a series of asterisks, use three asterisks centered on a line, separated by a single space.
8. When passages in languages that use a script different from the Indian

language being used appear, the following practice may be followed: For passages with more than three words in a foreign language, two cell signs Dot 2, 2 (:::) should be placed before the first word and a single Dot 2 (:) before the last word. For passages with three words or less, each word should have a single Dot 2 (:) before it. Foreign language contractions are generally not used, except in grammars and dictionaries.

9. A word or words underscored in print indicating stress may be placed within the two cell signs Dots 236 and 356 (:::). Three/Four cell lower signs may be employed when underscored words are already placed within outer or inner quotations.
10. To open and close parentheses or brackets (), Dot 2356 (:) is used. No space should be left before or after the bracket. When enclosing a part of a word in parentheses or brackets, the standard practice used in print should be followed.
11. Typically, there is no space before or after the Braille dash represented by Dots 36, 36 (:::). If there is no space at the end of a line, the dash can be written at the beginning of the next line preceded by a word from the previous line. However, the compound sign, which includes the colon and dash, should not be split at the end of a line. In Braille, a long dash is generally handled the same way as in print.
12. Abbreviations that are commonly used in print should also be used in Braille, adhering to the print text. Abbreviations made up of the initial letters of a person's name, an organization, or an institution, and not using abbreviation points in print, should be written in Braille preceded by the letter sign Dot 56 (:).
13. In Braille, the colon sign (:) is represented by Dot 25 (:) and is used to denote specific points in time, separating hours, minutes, and seconds. The number sign Dot 3456 (:) is not repeated.
14. The oblique stroke or bar (/) is represented by Dot 34 (:) and is used whenever it appears in print, except in dates. When dates are written with the month, day, or year separated by an oblique stroke, hyphen, or full stop in print, the corresponding numbers in Braille are separated by Hyphen Dot 36 (:), with only one number sign Dot 3456 (:) preceding the entire sequence.
15. In general literature, the common mathematical operation signs for addition, subtraction, multiplication, division, and equality should always be written out in words. The specialized mathematical symbols should be reserved for use in mathematics and scientific texts only.
16. Every line of poetry should start in the first cell of a new Braille line. If a line of poetry is too long to fit on one Braille line, it should be continued in the third cell of a new line. Leave a blank line before and after each stanza. To

save space, poetry can be written as prose, with each stanza beginning in the third Braille cell of a new line and three blank cells between poetic lines. If a poetic line does not end within a Braille line, the final word should be carried over to the next Braille line. This approach should also be used when poetry appears within prose. Dot A blank Braille line should be left before and after the poetic passage. In case of a poetry line in prose, the poetry sign 345, 345 is to be used at the beginning (with space after poetry sign) and at the end of the poetry line 345 is to be used without space.

17. In Braille, a series of dots in print is represented by using Dot 3 (⠼⠼⠼) three times, forming an ellipsis sign. This sign should be written with one space before and after its cell and may be punctuated as a word depending on the context. When dots indicate the omission of letters within words, an equivalent number of Dot 2 (⠼⠼) should be used without spacing. If the ellipses signify the omission of a complete paragraph, they should be treated as a separate paragraph.
18. Halant (⠄⠄⠄) should be inserted prior to the consonant which it is affecting.
19. If word starts with a 'vowel' then consider the entered braille symbol as a 'vowel' and not as a 'matra'. Example: आई, इकाइयां, इलेक्ट्रॉन।
20. If a 'vowel' comes immediately after a consonant then it represents a 'Matra' and not a vowel. Example: बाइबल, भालू, पानी, नीति, रुई।
21. If the previous character entry was a 'vowel' or a 'matra', consider the current entry to be a vowel. Example : आई, इकाइयां, बुआ, बहनोई, जमाई।
22. Insertion of vowel: like लखनऊ and भालू (नऊ and लू). It depends on the user whether they wish to insert a 'matra' or vowel after a consonant. If the user wants to add a vowel then after inserting consonant, dot1 should be inserted, and then the braille symbol for the vowel, otherwise a 'matra' will be inserted.
23. हलंत dot 4 will always be added before the consent for eg: धर्म is written as dot 2346, 4, 1235, 134.
24. Dot 1 or अ will inserted whenever a स्वर अक्षर will immediately comes after the consonant for eg: गई is written as dot 1245, 1, 35.
25. Whichever character has nukta we will add dot 5 before the consonant eg. ज़ to be written in braille as dot 5, 245.
26. When there is both a halant and a nukta in a word, the halant (dot 4 in braille) will be place before the nukta for eg. ज्यादा to be written as dot 4, 5, 245, 13456, 345, 145, 345.
27. To denote different phonetic symbols of a phoneme, the respective vowels and consonants should be preceded by Dot No. 5 in each language.
28. To write footnotes in Braille the following suitable methods should be used:

- a) Short notes of seven words or less should be inserted in the text following the word or words which they refer, should be enclosed in Brackets.
  - b) Long and or copious notes should be placed at the end of the volume in which they occur with reference to them. In the text being indited by consecutively numbered asterisk are inserted in the text beginning with one for each volume immediately the following text. The note section should begin from a new page headed by note. In the note section, each note number, without an asterisk should begin in the first cell of new line followed by the page and line number of the Braille text where the corresponding reference occurs, followed by the note itself. If a note requires more than one Braille line, all successive line should be indented three spaces.
  - c) If the notes are short or few in number, they may be written at the foot of the page in paragraph form separated from general text by a row of dots 25 (..) or an asterisk (\*) preceded and followed by a space should be inserted in the appropriate place in the text and repeated before the note at the bottom of the page. In case of more than one footnote to be placed at the foot of the same Braille page, the notes should be numbered in order beginning with one for new Braille page and the asterisk at the foot of reference in the text should be followed by the appropriate number without a space, although a space should be left between the number and the following word.
  - d) Notes may also be placed at the end of the paragraph where this method is applied, an asterisk should be inserted at the point of reference and the notes written in the paragraph within brackets with asterisk be repeated beginning inside the opening bracket. If there is more than one in the same paragraph, each asterisk in the text should be followed by the appropriate note number and the number should be repeated at the beginning of the note itself. The lower sign Dots 56 (:) denotes the letter sign in Braille. The letter sign is used before a letter or letters when it is required to distinguish between the letter meaning and the number, a word, whole word contraction or an abbreviated word. The letter sign is needed when:
    - i. Any letter of the alphabet follows a number or is separated by a Hyphen following a number.
    - ii. A letter which means a letter standing alone is not followed by an abbreviation point indicating an abbreviation.
    - iii. A combination of letters standing alone could be confused with an abbreviated word.
    - iv. A letter is joined by a Hyphen to a word or number which follows it.

(Letters which mean letter should be preceded only by a letter sign with all parenthesise or quotation marks should be omitted, even though they are used in Ink print.)

**Tables from the next page are being presented in sequence of unicode table. They are not being arrange as per alphabetical series/flow.**

For English, mathematics and science, prevailing Nemeth Codes and corresponding rules to be applicable.

This booklet includes Bharati Braille as per Grade 1 and therefore, contraction codes for Bharati Braille have not been included in this booklet.

## Devanagari Unicode along with Bharati Braille Codes for Hindi, Sanskrit, Marathi, and Nepali

S. No	Unicode	Description	Print Character	Hindi/ Sanskrit/ Marathi/ Nepali	
				Braille Code (Numbers)	Braille Code (Dots)
<b>Various Signs</b>					
1.	0901	DEVANAGARI SIGN CHANDRABINDU = anunasika → 0310 combining chandrabindu	ঁ	3	ঁ
2.	0902	DEVANAGARI SIGN ANUSVARA = bindu	ঁ	56	ঁ
3.	0903	DEVANAGARI SIGN VISARGA	ঃ	6	ঃ
4.	0905	DEVANAGARI LETTER A	অ	1	ঃ
5.	0906	DEVANAGARI LETTER AA	আ	345	ঃ
6.	0907	DEVANAGARI LETTER I	ই	24	ঃ
7.	0908	DEVANAGARI LETTER II	ঈ	35	ঃ
8.	0909	DEVANAGARI LETTER U	উ	136	ঃ
9.	090A	DEVANAGARI LETTER UU	ऊ	1256	ঃ
10.	090B	DEVANAGARI LETTER VOCALIC R	ঔ	5, 1235	ঃঃ
11.	090C	DEVANAGARI LETTER VOCALIC L	ল	5, 123	ঃঃ
12.	090F	DEVANAGARI LETTER E	া	15	ঃ
13.	0910	DEVANAGARI LETTER AI	া	34	ঃ
14.	0911	DEVANAGARI LETTER CHANDRA O	ঁ	1346	ঃ
15.	0913	DEVANAGARI LETTER O	ঁ	135	ঃ
16.	0914	DEVANAGARI LETTER AU	ঁ	246	ঃ
<b>Consonants</b>					
17.	0915	DEVANAGARI LETTER KA	ক	13	ঃ
18.	0916	DEVANAGARI LETTER KHA	খ	46	ঃ

19.	0917	DEVANAGARI LETTER GA	ग	1245	॥
20.	0918	DEVANAGARI LETTER GHA	घ	126	॥
21.	0919	DEVANAGARI LETTER NGA	ङ	346	॥
22.	091A	DEVANAGARI LETTER CHA	च	14	॥
23.	091B	DEVANAGARI LETTER CHHA	छ	16	॥
24.	091C	DEVANAGARI LETTER JA	ज	245	॥
25.	091D	DEVANAGARI LETTER JHA	झ	356	॥
26.	091E	DEVANAGARI LETTER NYA	ञ	25	॥
27.	091F	DEVANAGARI LETTER TTA	ट	23456	॥
28.	0920	DEVANAGARI LETTER TTHA	ठ	2456	॥
29.	0921	DEVANAGARI LETTER DDA	ड	1246	॥
30.	0922	DEVANAGARI LETTER DDHA	ढ	123456	॥
31.	0923	DEVANAGARI LETTER NNA	ण	3456	॥
32.	0924	DEVANAGARI LETTER TA	त	2345	॥
33.	0925	DEVANAGARI LETTER THA	थ	1456	॥
34.	0926	DEVANAGARI LETTER DA	द	145	॥
35.	0927	DEVANAGARI LETTER DHA	ধ	2346	॥
36.	0928	DEVANAGARI LETTER NA	ন	1345	॥
37.	092A	DEVANAGARI LETTER PA	প	1234	॥
38.	092B	DEVANAGARI LETTER PHA	ফ	124	॥
39.	092C	DEVANAGARI LETTER BA	ব	12	॥
40.	092D	DEVANAGARI LETTER BHA	ভ	45	॥
41.	092E	DEVANAGARI LETTER MA	ম	134	॥
42.	092F	DEVANAGARI LETTER YA	য	13456	॥
43.	0930	DEVANAGARI LETTER RA	ৰ	1235	॥
44.	0932	DEVANAGARI LETTER LA	ল	123	॥
45.	0933	DEVANAGARI LETTER LLA	ল	456	॥
46.	0935	DEVANAGARI LETTER VA	ৱ	1236	॥
47.	0936	DEVANAGARI LETTER SHA	শ	146	॥
48.	0937	DEVANAGARI LETTER SSA	ষ	12346	॥

49.	0938	DEVANAGARI LETTER SA	स	234	⋮
50.	0939	DEVANAGARI LETTER HA	ह	125	⋮
<b>Various Signs</b>					
51.	093C	DEVANAGARI SIGN NUKTA • for extending the alphabet to new letters	.	5	⋮
52.	093D	DEVANAGARI SIGN AVAGRAHA	᳚	2	⋮
<b>Dependent Vowel Signs</b>					
53.	093E	DEVANAGARI VOWEL SIGN AA	᳚	345	⋮
54.	093F	DEVANAGARI VOWEL SIGN I • stands to the left of the consonant	᳚	24	⋮
55.	0940	DEVANAGARI VOWEL SIGN II	᳚	35	⋮
56.	0941	DEVANAGARI VOWEL SIGN U	᳚	136	⋮
57.	0942	DEVANAGARI VOWEL SIGN UU	᳚	1256	⋮
58.	0943	DEVANAGARI VOWEL SIGN VOCALIC R	᳚	5, 1235	⋮⋮
59.	0944	DEVANAGARI VOWEL SIGN VOCALIC RR	᳚	6, 1235	⋮⋮
60.	0945	DEVANAGARI VOWEL SIGN CHANDRA E = chandra	᳚	1346	⋮
61.	0947	DEVANAGARI VOWEL SIGN E	᳚	15	⋮
62.	0948	DEVANAGARI VOWEL SIGN AI	᳚	34	⋮
63.	0949	DEVANAGARI VOWEL SIGN CHANDRA O	᳚	1346	⋮
64.	094B	DEVANAGARI VOWEL SIGN O	᳚	135	⋮
65.	094C	DEVANAGARI VOWEL SIGN AU	᳚	246	⋮
<b>Virama</b>					
66.	094D	DEVANAGARI SIGN VIRAMA = halant (the preferred Hindi name) • suppresses inherent vowel	᳚	4	⋮

Sign					
67.	0950	DEVANAGARI OM → 1F549 ॐ om symbol	ॐ	5, 1256	॥॥
68.	0951	DEVANAGARI STRESS SIGN UDATTA  • used also in Vedic texts written in other scripts. To be used after swar to which it applies.	'	1356	॥
69.	0952	DEVANAGARI STRESS SIGN ANUDATTA = Vedic tone anudatta • used also in Vedic texts written in other scripts. To be used after swar to which it applies.	-	12356	॥
70.	095C	DEVANAGARI LETTER DDDHA ≡ 0921 ढ 093C.	ঢ	12456	॥
71.	095D	DEVANAGARI LETTER RHA ≡ 0922 র 093C.	ঝ	5, 12456	॥॥
72.	0960	DEVANAGARI LETTER VOCALIC RR	ର୍ର	6, 1235	॥॥
73.	0961	DEVANAGARI LETTER VOCALIC LL	ଲ୍ଲ	6, 123	॥॥
74.	0962	DEVANAGARI VOWEL SIGN VOCALIC L	ଲ୍	5, 123	॥॥
75.	0963	DEVANAGARI VOWEL SIGN VOCALIC LL	ଲ୍ଲ୍	6, 123	॥॥
Digits					
76.	0966	DEVANAGARI DIGIT ZERO • also used to represent an anusvara following digits indicating secondary svara-s in Samavedic texts	०	3456, 245	॥॥
77.	0967	DEVANAGARI DIGIT ONE	১	3456, 1	॥॥
78.	0968	DEVANAGARI DIGIT TWO	২	3456, 12	॥॥
79.	0969	DEVANAGARI DIGIT THREE	৩	3456, 14	॥॥
80.	096A	DEVANAGARI DIGIT FOUR	৪	3456, 145	॥॥

81.	096B	DEVANAGARI DIGIT FIVE	᳚	3456, 15	
82.	096C	DEVANAGARI DIGIT SIX	᳛	3456, 124	
83.	096D	DEVANAGARI DIGIT SEVEN	᳜	3456, 1245	
84.	096E	DEVANAGARI DIGIT EIGHT	᳝	3456, 125	
85.	096F	DEVANAGARI DIGIT NINE	᳞	3456, 24	

## Additional Characters

86.	0915, 094D, 0937	DEVANAGARI LETTER Ksha	ક્ષ	12345	ઃ
87.	091C, 094D, 091E	DEVANAGARI LETTER Gya	ગ્ય	156	ઃ
88.	0924, 094D, 0930	DEVANAGARI LETTER Tra	ત્ર	4, 2345, 1235	ઃ ઃ ઃ
89.	0936, 094D, 0930	DEVANAGARI LETTER Sra	શ્ર	4, 146, 1235	ઃ ઃ ઃ
90.	0929	DEVANAGARI LETTER NNNA	ન્ન	5, 1345	ઃ ઃ
91.	0931	DEVANAGARI LETTER RRA	ર્ર	5, 1235	ઃ ઃ
92.	0958	DEVANAGARI LETTER QA ≡ 0915 કુ 093C	ક્ર	5, 13	ઃ ઃ
93.	0959	DEVANAGARI LETTER KHHA ≡ 0916 ખુ 093C	ખ્ર	5, 46	ઃ ઃ
94.	095A	DEVANAGARI LETTER GHHA ≡ 0917 ગુ 093C	ગ્ર	5, 1245	ઃ ઃ
95.	095B	DEVANAGARI LETTER ZA ≡ 091C જુ 093C	જ્ર	5, 245	ઃ ઃ
96.	095E	DEVANAGARI LETTER FA ≡ 092B ફુ 093C	ફ્ર	5, 124	ઃ ઃ
97.	095F	DEVANAGARI LETTER YYA ≡ 092F યુ 093C	ય્ર	5, 13456	ઃ ઃ
98.	0964	DEVANAGARI DANDA = purna viram • phrase separator		256	ઃ
99.	097B	DEVANAGARI LETTER GGA	ગ્ગ	5, 1245	ઃ ઃ

## **Remarks:**

- To denote different phonetic symbols of a phoneme, the respective vowels and consonants should be preceded by Dot No. 5. eg. To denote the phonetic sound of Ka and Ga of Urdu Dot No. 1 and 3(Ka) and Dot No. 1, 2, 4 and 5 (Ga) should be preceded by Dot No. 5 in Hindi.
- For Hindi/Sanskrit/Marathi/Nepali फ़, dot No. 1, 2 and 4 to be used. This will in the symmetry with phonetic sound of English F. Earlier, dot No. 2, 3 and 5 was being used in Hindi.
- For denoting different phonetic sound of vowel A, it was recommended that Dot No. 1 should be preceded by Dot No. 5.
- Nukta letters will be denoted by preceding Dot 5 (ঃ).
- For Marathi, to clarify the confusion between avagraha and comma could best be resolved by continuing the comma sign with dot 2. In the case of avagrahas however, a minimum of 2 consecutive dot 2 may be used. More dot 2's may be inserted in case of requiring more emphasis.
- For Nepali, the small „ree“ to be symbolised by dot 5, 1235.
- Numbers will be written by preceding Dots 3456(ঃ) (Number sign) before English alphabets A to J in sequence.
- For Sanskrit, GVANG (গঁও) (ঃ) to be symbolised by dots 5, 346 (ঃঃঃ).
- For Sanskrit (ঁ), জিহ্বামূলীয় তথা উপধমানীয় to be symbolised by dots 5 (ঃ).

## **Bangla Unicode along with Bharati Braille Codes for Assamese and Bengali Language**

S. No	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dots)
<b>Various Signs</b>					
1.	0981	BENGALI SIGN CANDRABINDU	ঁ	3	ঁ
2.	0982	BENGALI SIGN ANUSVARA	ং	56	ং
3.	0983	BENGALI SIGN VISARGA	ঃ	6	ঃ
<b>Independent Vowels</b>					
4.	0985	BENGALI LETTER A	অ	1	অ
5.	0986	BENGALI LETTER AA	আ	345	আ
6.	0987	BENGALI LETTER I	ই	24	ই
7.	0988	BENGALI LETTER II	ঈ	35	ঈ
8.	0989	BENGALI LETTER U	উ	136	উ
9.	098A	BENGALI LETTER UU	ঊ	1256	ঊ
10.	098B	BENGALI LETTER VOCALIC R	ঞ	5, 1235	ঞ
11.	098C	BENGALI LETTER VOCALIC L	ঙ	5, 123	ঙ
12.	098F	BENGALI LETTER E	এ	15	এ
13.	0990	BENGALI LETTER AI	া	34	া
14.	0993	BENGALI LETTER O	ও	135	ও
15.	0994	BENGALI LETTER AU	া	246	া
<b>Consonants</b>					
16.	0995	BENGALI LETTER KA	ক	13	ক
17.	0996	BENGALI LETTER KHA	খ	46	খ

18.	0997	BENGALI LETTER GA	গ	1245	ঃ
19.	0998	BENGALI LETTER GHA	ঘ	126	ঃ
20.	0999	BENGALI LETTER NGA	ঝ	346	ঃ
21.	099A	BENGALI LETTER CA	চ	14	ঃ
22.	099B	BENGALI LETTER CHA	ছ	16	ঃ
23.	099C	BENGALI LETTER JA	জ	245	ঃ
24.	099D	BENGALI LETTER JHA	ঝ	356	ঃ
25.	099E	BENGALI LETTER NYA	ঞ	25	ঃ
26.	099F	BENGALI LETTER TTA	ট	23456	ঃ
27.	09A0	BENGALI LETTER TTHA	ঢ	2456	ঃ
28.	09A1	BENGALI LETTER DDA	ড	1246	ঃ
29.	09A2	BENGALI LETTER DDHA	ঢ	123456	ঃ
30.	09A3	BENGALI LETTER NNA	ণ	3456	ঃ
31.	09A4	BENGALI LETTER TA	ত	2345	ঃ
32.	09A5	BENGALI LETTER THA	থ	1456	ঃ
33.	09A6	BENGALI LETTER DA	দ	145	ঃ
34.	09A7	BENGALI LETTER DHA	ধ	2346	ঃ
35.	09A8	BENGALI LETTER NA	ন	1345	ঃ
36.	09AA	BENGALI LETTER PA	প	1234	ঃ
37.	09AB	BENGALI LETTER PHA	ফ	124	ঃ
38.	09AC	BENGALI LETTER BA	ব	12	ঃ
39.	09AD	BENGALI LETTER BHA	ভ	45	ঃ
40.	09AE	BENGALI LETTER MA	ম	134	ঃ

41.	09AF	BENGALI LETTER YA	য	13456	ঃ
42.	09B0	BENGALI LETTER RA	ৰ	1235	ঃ
43.	09B2	BENGALI LETTER LA	ল	123	ঃ
44.	09B6	BENGALI LETTER SHA	শ	146	ঃ
45.	09B7	BENGALI LETTER SSA	ষ	12346	ঃ
46.	09B8	BENGALI LETTER SA	স	234	ঃ
47.	09B9	BENGALI LETTER HA	হ	125	ঃ

#### Various Signs

48.	09BC	BENGALI SIGN NUKTA • for extending the alphabet to new letters	.	5	ঃ
49.	09BD	BENGALI SIGN AVAGRAHA	ং	2	ঃ

#### Dependent Vowel Signs

50.	09BE	BENGALI VOWEL SIGN AA	ঁ	345	ঃ
51.	09BF	BENGALI VOWEL SIGN I stands to the left of the consonant	ঁ	24	ঃ
52.	09C0	BENGALI VOWEL SIGN II	ঁ	35	ঃ
53.	09C1	BENGALI VOWEL SIGN U	ঁ	136	ঃ
54.	09C2	BENGALI VOWEL SIGN UU	ঁ	1256	ঃ
55.	09C3	BENGALI VOWEL SIGN VOCALIC R	ঁ	5, 1235	ঃঃ
56.	09C4	BENGALI VOWEL SIGN VOCALIC RR	ঁ	6, 1235	ঃঃ
57.	09C7	BENGALI VOWEL SIGN E stands to the left of the consonant	ঁ	15	ঃ

58.	09C8	BENGALI VOWEL SIGN AI stands to the left of the consonant	ঈ	34	ঃ
<b>Two-Part dependent Vowel Signs</b>					
59.	09CB	BENGALI VOWEL SIGN O	ঔ	135	ঃ
60.	09CC	BENGALI VOWEL SIGN AU	ঁৌ	246	ঃ
<b>Virama</b>					
61.	09CD	BENGALI SIGN VIRAMA	ঁ	4	ঃ
<b>Additional Consonant</b>					
62.	09CE	BENGALI LETTER KHANDA TA	ঁ্ত	5, 2345	ঃঃ
<b>Additional Consonants</b>					
63.	09DC	BENGALI LETTER RRA	ঁড়	5, 12456	ঃঃ
64.	09DD	BENGALI LETTER RHA	ঁঢ়	5, 12456	ঃঃ
65.	09DF	BENGALI LETTER YYA	ঁঘ	26	ঃ
<b>Additional Vowels</b>					
66.	09E0	BENGALI LETTER VOCALIC RR	ঁঞ্চ	6, 1235	ঃঃ
67.	09E1	BENGALI LETTER VOCALIC LL	ঁঞ্চ	6, 123	ঃঃ
68.	09E2	BENGALI VOWEL SIGN VOCALIC L	ঁ	5, 123	ঃঃ
69.	09E3	BENGALI VOWEL SIGN VOCALIC LL	ঁঁ	6, 123	ঃঃ
<b>Digits</b>					
70.	09E6	BENGALI DIGIT ZERO	০	3456, 245	ঃঃ
71.	09E7	BENGALI DIGIT ONE	১	3456, 1	ঃঃ
72.	09E8	BENGALI DIGIT TWO	২	3456, 12	ঃঃ
73.	09E9	BENGALI DIGIT THREE	৩	3456, 14	ঃঃ

74.	09EA	BENGALI DIGIT FOUR	৪	3456, 145	ঃঃ
75.	09EB	BENGALI DIGIT FIVE	৫	3456, 15	ঃঃ
76.	09EC	BENGALI DIGIT SIX	৬	3456, 124	ঃঃ
77.	09ED	BENGALI DIGIT SEVEN	৭	3456, 1245	ঃঃ
78.	09EE	BENGALI DIGIT EIGHT	৮	3456, 125	ঃঃ
79.	09EF	BENGALI DIGIT NINE	৯	3456, 24	ঃঃ

#### Additions for Assamese

80.	09F0	BENGALI LETTER RA WITH MIDDLE DIAGONAL	ର	1235	ঃ
81.	09F1	BENGALI LETTER RA WITH LOWER DIAGONAL	ର	1236	ঃ
82.	09F2	BENGALI RUPEE MARK	₹	5, 123	ঃঃ
83.	09F3	BENGALI RUPEE SIGN	₹	6, 123	ঃঃ

#### Other Characters

84.	0995, 09CD, 09B7		କ୍ସ or କୟ	12345	ঃ
85.	099C, 09CD, 099E		ଜୁକ୍ତାକ୍ଷର	156	ঃ

#### Remarks:

- Nukta letters will be denoted by preceding Dot 5 (ঃ).
- Numbers will be written by preceding Dots 3456(ঃ) (Number sign) before English alphabets A to J in sequence.
- It was suggested to prefix dot 5 with T instead of dot 4, the sign used for "Juktakshar".

## Gujarati Unicode along with Bharati Braille Codes for Gujarati Language

S. NO.	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dost)
<b>Various Signs</b>					
1.	0A81	GUJARATI SIGN CANDRABINDU	ં	3	ં
2.	0A82	GUJARATI SIGN ANUSVARA	ઃ	56	ઃ
3.	0A83	GUJARATI SIGN VISARGA	ઃ	6	ઃ
<b>Independent Vowels</b>					
4.	0A85	GUJARATI LETTER A	ા	1	ા
5.	0A86	GUJARATI LETTER AA	ાં	345	ાં
6.	0A87	GUJARATI LETTER I	િ	24	િ
7.	0A88	GUJARATI LETTER II	િં	35	િં
8.	0A89	GUJARATI LETTER U	ુ	136	ુ
9.	0A8A	GUJARATI LETTER UU	ું	1256	ું
10.	0A8B	GUJARATI LETTER VOCALIC R	ું	5, 1235	ું
11.	0A8C	GUJARATI LETTER VOCALIC L • used with Sanskrit text	ં	5, 123	ં
12.	0A8D	GUJARATI VOWEL CANDRA E	ઔ	26	ઔ
13.	0A8F	GUJARATI LETTER E	ઔ	15	ઔ
14.	0A90	GUJARATI LETTER AI	ઔ	34	ઔ
15.	0A91	GUJARATI VOWEL CANDRA O	ઔં	1346	ઔં
16.	0A93	GUJARATI LETTER O	ઔં	135	ઔં

17.	0A94	GUJARATI LETTER AU	ઔ	246	::
<b>Consonants</b>					
18.	0A95	GUJARATI LETTER KA	ક	13	::
19.	0A96	GUJARATI LETTER KHA	ખ	46	::
20.	0A97	GUJARATI LETTER GA	ગ	1245	::
21.	0A98	GUJARATI LETTER GHA	ધ	126	::
22.	0A99	GUJARATI LETTER NGA	સ	346	::
23.	0A9A	GUJARATI LETTER CA	ચ	14	::
24.	0A9B	GUJARATI LETTER CHA	ઝ	16	::
25.	0A9C	GUJARATI LETTER JA	જ	245	::
26.	0A9D	GUJARATI LETTER JHA	ઝ	356	::
27.	0A9E	GUJARATI LETTER NYA	ઝ	25	::
28.	0A9F	GUJARATI LETTER TTA	ટ	23456	::
29.	0AA0	GUJARATI LETTER TTHA	ઠ	2456	::
30.	0AA1	GUJARATI LETTER DDA	ઢ	1246	::
31.	0AA2	GUJARATI LETTER DDHA	ડ	123456	::
32.	0AA3	GUJARATI LETTER NNA	ણ	3456	::
33.	0AA4	GUJARATI LETTER TA	દ	2345	::
34.	0AA5	GUJARATI LETTER THA	થ	1456	::
35.	0AA6	GUJARATI LETTER DA	ણ	145	::
36.	0AA7	GUJARATI LETTER DHA	ધ	2346	::
37.	0AA8	GUJARATI LETTER NA	ન	1345	::

38.	0AAA	GUJARATI LETTER PA	પ	1234	ઃ
39.	0AAB	GUJARATI LETTER PHA	ફ	124	ઃ
40.	0AAC	GUJARATI LETTER BA	બ	12	ઃ
41.	0AAD	GUJARATI LETTER BHA	ભ	45	ઃ
42.	0AAE	GUJARATI LETTER MA	મ	134	ઃ
43.	0AAF	GUJARATI LETTER YA	ય	13456	ઃ
44.	0AB0	GUJARATI LETTER RA	ર	1235	ઃ
45.	0AB2	GUJARATI LETTER LA	લ	123	ઃ
46.	0AB3	GUJARATI LETTER LLA	લ્લ	456	ઃ
47.	0AB5	GUJARATI LETTER VA	વ	1236	ઃ
48.	0AB6	GUJARATI LETTER SHA	શ	146	ઃ
49.	0AB7	GUJARATI LETTER SSA	સ્શ	12346	ઃ
50.	0AB8	GUJARATI LETTER SA	સ	234	ઃ
51.	0AB9	GUJARATI LETTER HA	હ	125	ઃ

#### Various Signs

52.	0ABC	GUJARATI SIGN NUKTA • for extending the alphabet to new letters	.	5	ઃ
53.	0ABD	GUJARATI SIGN AVAGRAHA	,	2	ઃ

#### Dependent Vowel Signs

54.	0ABE	GUJARATI VOWEL SIGN AA	ા	345	ઃ
55.	0ABF	GUJARATI VOWEL SIGN I • stands to the left of the consonant	િ	24	ઃ
56.	0AC0	GUJARATI VOWEL SIGN II	િ	35	ઃ

57.	0AC1	GUJARATI VOWEL SIGN U	ં	136	ઃ
58.	0AC2	GUJARATI VOWEL SIGN UU	ં	1256	ઃ
59.	0AC3	GUJARATI VOWEL SIGN VOCALIC R	ં	5, 1235	ઃઃ
60.	0AC4	GUJARATI VOWEL SIGN VOCALIC RR	ં	6, 1235	ઃઃ
61.	0AC5	GUJARATI VOWEL SIGN CANDRA E	ં	26	ઃ
62.	0AC7	GUJARATI VOWEL SIGN E	ં	15	ઃ
63.	0AC8	GUJARATI VOWEL SIGN AI	ં	34	ઃ
64.	0AC9	GUJARATI VOWEL SIGN CANDRA O	ં	1346	ઃ
65.	0ACB	GUJARATI VOWEL SIGN O	ં	135	ઃ
66.	0ACC	GUJARATI VOWEL SIGN AU	ં	246	ઃ

### Virama

67.	0ACD	GUJARATI SIGN VIRAMA	‘	4	ઃ
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### Various Signs

68.	0ADO	GUJARATI OM	ॐ	5, 1256	ઃઃ
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### Additional Vowels for Sanskrit

69.	0AE0	GUJARATI LETTER VOCALIC RR	ં	6, 1235	ઃઃ
70.	0AE1	GUJARATI LETTER VOCALIC LL	ং	6, 123	ઃઃ
71.	0AE2	GUJARATI VOWEL SIGN VOCALIC L	ং	5, 123	ઃઃ
72.	0AE3	GUJARATI VOWEL SIGN VOCALIC LL	ং	6, 123	ઃઃ

### Digits

73.	0AE6	GUJARATI DIGIT ZERO	૦	3456, 245	ઃઃ
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74.	0AE7	GUJARATI DIGIT ONE	ા	3456, 1	ઃ
75.	0AE8	GUJARATI DIGIT TWO	ં	3456, 12	ઃ
76.	0AE9	GUJARATI DIGIT THREE	૩	3456, 14	ઃ
77.	0AEA	GUJARATI DIGIT FOUR	૪	3456, 145	ઃ
78.	0AEB	GUJARATI DIGIT FIVE	૫	3456, 15	ઃ
79.	0AEC	GUJARATI DIGIT SIX	૬	3456, 124	ઃ
80.	0AED	GUJARATI DIGIT SEVEN	૭	3456, 1245	ઃ ઃ
81.	0AEE	GUJARATI DIGIT EIGHT	૮	3456, 125	ઃ
82.	0AEF	GUJARATI DIGIT NINE	૯	3456, 24	ઃ

### Other Characters

83.	0A95, 0ACD, 0AB7	GUJARATI LETTER Ksha	ક્ષ	12345	ઃ
84.	0A9C, 0ACD, 0A9E	GUJARATI LETTER Gya	ગ્ય	156	ઃ
85.	0AA4, 0ACD, 0AB0	GUJARATI LETTER Tra	ત્રા	4, 2345, 1235	ઃ ઃ ઃ
86.	0AB6, 0ACD, 0AB0	GUJARATI LETTER Sri	શ્રી	4, 146, 1235	ઃ ઃ ઃ

### Remarks:

- Nukta letters will be denoted by preceding Dot 5 (ઃ).
- Numbers will be written by preceding Dots 3456(ઃ) (Number sign) before English alphabets A to J in sequence.

**PUNJABI (GURMUKHI) Unicode along with Bharati Braille Codes for PUNJABI (GURMUKHI) Language**

S. No.	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dost)
<b>Various Signs</b>					
1.	0A01	GURMUKHI SIGN ADAK BINDI	॰	3	॥
2.	0A02	GURMUKHI SIGN BINDI (TIPPI)	·	56	॥
3.	0A03	GURMUKHI SIGN VISARGA Independent vowels	ঃ	6	॥
<b>Various Signs</b>					
4.	0A05	GURMUKHI LETTER A = aira	ਾ	1	॥
5.	0A06	GURMUKHI LETTER AA	ਾਾ	345	॥
6.	0A07	GURMUKHI LETTER I	ਿ	24	॥
7.	0A08	GURMUKHI LETTER II	ੴ	35	॥
8.	0A09	GURMUKHI LETTER U	ਊ	136	॥
6.	0A0A	GURMUKHI LETTER UU	ਊਊ	1256	॥
7.	0A0F	GURMUKHI LETTER EE	ੋ	15	॥
8.	0A10	GURMUKHI LETTER AI	ਐ	34	॥
9.	0A13	GURMUKHI LETTER OO	ਊ	135	॥
10.	0A14	GURMUKHI LETTER AU	ਐਊ	246	॥
<b>Consonants</b>					
11.	0A15	GURMUKHI LETTER KA	ਕ	13	॥
12.	0A16	GURMUKHI LETTER KHA	ਖ	46	॥

13.	0A17	GURMUKHI LETTER GA	ਗ	1245	⋮
14.	0A18	GURMUKHI LETTER GHA	ਘ	126	⋮
15.	0A19	GURMUKHI LETTER NGA	ਝ	346	⋮
16.	0A1A	GURMUKHI LETTER CA	ਚ	14	⋮
17.	0A1B	GURMUKHI LETTER CHA	ਛ	16	⋮
18.	0A1C	GURMUKHI LETTER JA	ਜ	245	⋮
19.	0A1D	GURMUKHI LETTER JHA	ਯ	356	⋮
20.	0A1E	GURMUKHI LETTER NYA	ਣ	25	⋮
21.	0A1F	GURMUKHI LETTER TTA	ਟ	23456	⋮
22.	0A20	GURMUKHI LETTER TTHA	ਠ	2456	⋮
23.	0A21	GURMUKHI LETTER DDA	ਡ	1246	⋮
24.	0A22	GURMUKHI LETTER DDHA	ਢ	123456	⋮
25.	0A23	GURMUKHI LETTER NNA	ਣ	3456	⋮
26.	0A24	GURMUKHI LETTER TA	ਤ	2345	⋮
27.	0A25	GURMUKHI LETTER THA	ਥ	1456	⋮
28.	0A26	GURMUKHI LETTER DA	ਦ	145	⋮
29.	0A27	GURMUKHI LETTER DHA	ਯ	2346	⋮
30.	0A28	GURMUKHI LETTER NA	ਨ	1345	⋮
31.	0A2A	GURMUKHI LETTER PA	ਪ	1234	⋮

32.	0A2B	GURMUKHI LETTER PHA	ਫ	124	॥
33.	0A2C	GURMUKHI LETTER BA	ਬ	12	॥
34.	0A2D	GURMUKHI LETTER BHA	ਭ	45	॥
35.	0A2E	GURMUKHI LETTER MA	ਮ	134	॥
36.	0A2F	GURMUKHI LETTER YA	ਯ	13456	॥
37.	0A30	GURMUKHI LETTER RA	ਰ	1235	॥
38.	0A32	GURMUKHI LETTER LA	ਲ	123	॥
39.	0A33	GURMUKHI LETTER LLA	ਲ	456	॥
40.	0A35	GURMUKHI LETTER VA	ਵ	1236	॥
41.	0A36	GURMUKHI LETTER SHA ≡ 0A38 ਸ 0A3C	ਸ	146	॥
42.	0A38	GURMUKHI LETTER SA	ਸ	234	॥
43.	0A39	GURMUKHI LETTER HA	ਹ	125	॥

#### Dependent Vowel Signs

44.	0A3E	GURMUKHI VOWEL SIGN AA = kanna	ਾ	345	॥
45.	0A3F	GURMUKHI VOWEL SIGN I = sihari • stands to the left of the consonant	ਿ	24	॥
46.	0A40	GURMUKHI VOWEL SIGN II = bihari	ਿ	35	॥
47.	0A41	GURMUKHI VOWEL SIGN U = aunkar	ੁ	136	॥
48.	0A42	GURMUKHI VOWEL SIGN UU = dulainkar	ੂ	1256	॥
49.	0A47	GURMUKHI VOWEL SIGN EE = lanvan	ੈ	15	॥
50.	0A48	GURMUKHI VOWEL SIGN AI = dulanvan	ੈ	34	॥

51.	0A4B	GURMUKHI VOWEL SIGN OO = hora	੦	135	॥
52.	0A4C	GURMUKHI VOWEL SIGN AU = kanaura	ਾ	246	॥
<b>Virama</b>					
53.	0A4D	GURMUKHI SIGN VIRAMA	ੀ	4	॥
<b>Additional Consonants</b>					
54.	0A59	GURMUKHI LETTER KHHA ≡ 0A16 ਖ 0A3C	ਖ	5, 13	॥॥
55.	0A5A	GURMUKHI LETTER GHHA ≡ 0A17 ਗ 0A3C	ਗ	5, 1245	॥॥
56.	0A5B	GURMUKHI LETTER ZA ≡ 0A1C ਜ 0A3C	ਜ	5, 245	॥॥
57.	0A5C	GURMUKHI LETTER RRA	ੜ	12456	॥
58	0A5E	GURMUKHI LETTER FA	ਫ	5, 124	॥॥
<b>Digits</b>					
59.	0A66	GURMUKHI DIGIT ZERO	੦	3456, 245	॥॥
60.	0A67	GURMUKHI DIGIT ONE	੧	3456, 1	॥॥
61.	0A68	GURMUKHI DIGIT TWO	੨	3456, 12	॥॥
62.	0A69	GURMUKHI DIGIT THREE	੩	3456, 14	॥॥
63.	0A6A	GURMUKHI DIGIT FOUR	੪	3456, 145	॥॥
64.	0A6B	GURMUKHI DIGIT FIVE	੫	3456, 15	॥॥
65.	0A6C	GURMUKHI DIGIT SIX	੬	3456, 124	॥॥
66.	0A6D	GURMUKHI DIGIT SEVEN	੭	3456, 1245	॥ ॥
67.	0A6E	GURMUKHI DIGIT EIGHT	੮	3456, 125	॥॥
68.	0A6F	GURMUKHI DIGIT NINE	੯	3456, 24	॥॥

## **Remarks:**

- Instead of using Dot No. 6 to precede a letter for denoting difference in the phonetic sound as suggested by the group, Dot No. 5 should be used to ensure uniformity.
- Nukta letters will be denoted by preceding Dot 5 (⋮).
- Numbers will be written by preceding Dots 3456 (⋮) (Number sign) before English alphabets A to J in sequence.
- Dot 4 will be used as ADAK. eg. for ਲੜਾ, dots 123, 4, 245, 345 will be used.

# Kannada Unicode along with Bharati Braille Codes for Kannada Language

19.	0C98	KANNADA LETTER GHA	ಘ	126	ಃ
20.	0C99	KANNADA LETTER NGA	ಙ	346	ಃ
21.	0C9A	KANNADA LETTER CA	ಜ	14	ಃ
22.	0C9B	KANNADA LETTER CHA	ಝ	16	ಃ
23.	0C9C	KANNADA LETTER JA	ಂ	245	ಃ
24.	0C9D	KANNADA LETTER JHA	ರ್ಜಾ	356	ಃ
25.	0C9E	KANNADA LETTER NYA	್ಯಾ	25	ಃ
26.	0C9F	KANNADA LETTER TTA	ಟ	23456	ಃ
27.	0CA0	KANNADA LETTER TTHA	ಠ	2456	ಃ
28.	0CA1	KANNADA LETTER DDA	ಡ	1246	ಃ
29.	0CA2	KANNADA LETTER DDHA	ಢ	123456	ಃ
30.	0CA3	KANNADA LETTER NNA	ನ	3456	ಃ
31.	0CA4	KANNADA LETTER TA	ತ	2345	ಃ
32.	0CA5	KANNADA LETTER THA	ಥ	1456	ಃ
33.	0CA6	KANNADA LETTER DA	ದ	145	ಃ
34.	0CA7	KANNADA LETTER DHA	ಥ	2346	ಃ
35.	0CA8	KANNADA LETTER NA	ನ	1345	ಃ
36.	0CAA	KANNADA LETTER PA	ಪ	1234	ಃ
37.	0CAB	KANNADA LETTER PHA	ಫ	124	ಃ
38.	0CAC	KANNADA LETTER BA	ಬ	12	ಃ
39.	0CAD	KANNADA LETTER BHA	ಭ	45	ಃ
40.	0CAE	KANNADA LETTER MA	ಮ	134	ಃ

41.	0CAF	KANNADA LETTER YA	ಯ	13456	ಃ
42.	0CB0	KANNADA LETTER RA	ರ	1235	ಃ
43	0CB1	KANNADA LETTER RRA	ಡ	12456	ಃ
44.	0CB2	KANNADA LETTER LA	ಲ	123	ಃ
45.	0CB3	KANNADA LETTER LLA	ಳ	456	ಃ
46.	0CB5	KANNADA LETTER VA	ವ	1236	ಃ
47.	0CB6	KANNADA LETTER SHA	ಶ	146	ಃ
48.	0CB7	KANNADA LETTER SSA	ಷ	12346	ಃ
49.	0CB8	KANNADA LETTER SA	ಸ	234	ಃ
50.	0CB9	KANNADA LETTER HA	ಹ	125	ಃ

#### Various Signs

51.	0CBC	KANNADA SIGN NUKTA	..	5	ಃ
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#### Dependent Vowel Signs

52.	0CBE	KANNADA VOWEL SIGN AA	ಾ	345	ಃ
53.	0CBF	KANNADA VOWEL SIGN I	ಿ	24	ಃ
54.	0CC0	KANNADA VOWEL SIGN II	ಿಇ	35	ಃ
55.	0CC1	KANNADA VOWEL SIGN U	ಂ	136	ಃ
56.	0CC2	KANNADA VOWEL SIGN UU	ಂಂ	1256	ಃ
57.	0CC3	KANNADA VOWEL SIGN VOCALIC R	೦	5, 1235	ಃಃ
58.	0CC4	KANNADA VOWEL SIGN VOCALIC RR	೦೩	6, 1235	ಃಃ
59.	0CC6	KANNADA VOWEL SIGN E	ಂ	26	ಃ

60.	0CC7	KANNADA VOWEL SIGN EE	ಇ	15	ಃ
61.	0CC8	KANNADA VOWEL SIGN AI	ಈ	34	ಃ
62.	0CCA	KANNADA VOWEL SIGN O	ಉ	1346	ಃ
63.	0CCB	KANNADA VOWEL SIGN OO	ಊ	135	ಃ
64.	0CCC	KANNADA VOWEL SIGN AU	ಋ	246	ಃ

### Virama

65.	0CCD	KANNADA SIGN VIRAMA	ಂ	4	ಃ
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### Digits

66.	0CE6	KANNADA DIGIT ZERO	೦	3456, 245	ಃಃ
67.	0CE7	KANNADA DIGIT ONE	೧	3456, 1	ಃಃ
68.	0CE8	KANNADA DIGIT TWO	೨	3456, 12	ಃಃ
69.	0CE9	KANNADA DIGIT THREE	೩	3456, 14	ಃಃ
70.	0CEA	KANNADA DIGIT FOUR	೪	3456, 145	ಃಃ
71.	0CEB	KANNADA DIGIT FIVE	೫	3456, 15	ಃಃ
72.	OCEC	KANNADA DIGIT SIX	೬	3456, 124	ಃಃ
73.	0CED	KANNADA DIGIT SEVEN	೭	3456, 1245	ಃ ಃ
74.	0CEE	KANNADA DIGIT EIGHT	೮	3456, 125	ಃಃ
75.	0CEF	KANNADA DIGIT NINE	೯	3456, 24	ಃಃ
76.	0C95, 0CCD, 0CB7		೯೯೯	12345	ಃ
77.	0CDE	KANNADA LETTER FA	ಋ	5, 456	ಃಃ

### **Remarks:**

- The letters (rh) and (la) exists in Halegannada (Ancient Kannada) text even now. Students studying major Kannada will come across those letters. Their phonetics is different and have a separate letters in Kannada written text. It was recommended to use dots 2, 5, 1,2,3 and 5 for (rh) and dot 5- 4,5 and 6 for (la) may be recommended to be used.
- For Kannada letter GYA (ಃ) with unicode 0C9C, 0CCD, 0C9E in Braille, Dots 156 (ಃ) to be used
- For Kannada letter FA (ಃ) with unicode 0CAB, 0CBC in Braille, Dots 5,124 (ಃಃ) to be used
- For Kannada letter ZA (ಃ) with unicode 0C9C, 0CBC in Braille, Dots 5,245 (ಃಃ) to be used
- Nukta letters will be denoted by preceding Dot 5 (ಃ).
- Numbers will be written by preceding Dots 3456(ಃ) (Number sign) before English alphabets A to J in sequence.

# **Malayalam Unicode along with Bharati Braille Codes for Malayalam Language**

16.	0D13	MALAYALAM LETTER OO	ഓ	135	⋮
17.	0D14	MALAYALAM LETTER AU	ഔ	246	⋮
<b>Consonants</b>					
18.	0D15	MALAYALAM LETTER KA	ക	13	⋮
19.	0D16	MALAYALAM LETTER KHA	വ	46	⋮
20.	0D17	MALAYALAM LETTER GA	ം	1245	⋮
21.	0D18	MALAYALAM LETTER GHA	എ	126	⋮
22.	0D19	MALAYALAM LETTER NGA	ഓ	346	⋮
23.	0D1A	MALAYALAM LETTER CA	ഉ	14	⋮
24.	0D1B	MALAYALAM LETTER CHA	ച	16	⋮
25.	0D1C	MALAYALAM LETTER JA	ജ	245	⋮
26.	0D1D	MALAYALAM LETTER JHA	ഞ	356	⋮
27.	0D1E	MALAYALAM LETTER NYA	ണ	25	⋮
28.	0D1F	MALAYALAM LETTER TTA	സ	23456	⋮
29.	0D20	MALAYALAM LETTER TTHA	ഠ	2456	⋮
30.	0D21	MALAYALAM LETTER DDA	ഡ	1246	⋮
31.	0D22	MALAYALAM LETTER DDHA	ഢ	123456	⋮
32.	0D23	MALAYALAM LETTER NNA	ണ	3456	⋮
33.	0D24	MALAYALAM LETTER TA	ഠ	2345	⋮

34.	0D25	MALAYALAM LETTER THA	ഥ	1456	::
35.	0D26	MALAYALAM LETTER DA	ം	145	::
36.	0D27	MALAYALAM LETTER DHA	ം	2346	::
37.	0D28	MALAYALAM LETTER NA	ം	1345	::
38.	0D2A	MALAYALAM LETTER PA	ം	1234	::
39.	0D2B	MALAYALAM LETTER PHA	ം	124	::
40.	0D2C	MALAYALAM LETTER BA	ം	12	::
41.	0D2D	MALAYALAM LETTER BHA	ം	45	::
42.	0D2E	MALAYALAM LETTER MA	ം	134	::
43.	0D2F	MALAYALAM LETTER YA	ം	13456	::
44.	0D30	MALAYALAM LETTER RA	ം	1235	::
45.	0D31	MALAYALAM LETTER RRA	ം	12456	::
46.	0D32	MALAYALAM LETTER LA	ം	123	::
47.	0D33	MALAYALAM LETTER LLA	ം	456	::
48.	0D34	MALAYALAM LETTER LLLA	ം	12356	::
49.	0D35	MALAYALAM LETTER VA	ം	1236	::
50.	0D36	MALAYALAM LETTER SHA	ം	146	::
51.	0D37	MALAYALAM LETTER SSA	ം	12346	::
52.	0D38	MALAYALAM LETTER SA	ം	234	::

53.	0D39	MALAYALAM LETTER HA	ാ	125	ഃ
<b>Dependent Vowel Signs</b>					
54.	0D3A	MALAYALAM LETTER TTTA	ഓ	4, 12456, 12456	ഃഃഃ
55.	0D3D	MALAYALAM SIGN AVAGRAHA	ഋ	2	ഃ
56.	0D3E	MALAYALAM VOWEL SIGN AA	ഋ	345	ഃ
57.	0D3F	MALAYALAM VOWEL SIGN I	ഈ	24	ഃ
58.	0D40	MALAYALAM VOWEL SIGN II	ഈ	35	ഃ
59.	0D41	MALAYALAM VOWEL SIGN U	ഔ	136	ഃ
60.	0D42	MALAYALAM VOWEL SIGN UU	ഔ	1256	ഃ
61.	0D43	MALAYALAM VOWEL SIGN VOCALIC R	ജ	5, 1235	ഃഃ
62.	0D46	MALAYALAM VOWEL SIGN E	ഇ	26	ഃ
63.	0D44	MALAYALAM VOWEL SIGN VOCALIC RR	ജം	6, 1235	ഃഃ
64.	0D47	MALAYALAM VOWEL SIGN EE	ഇം	15	ഃ
65.	0D48	MALAYALAM VOWEL SIGN AI	ഉം	34	ഃ
<b>Two-part dependent vowel Signs</b>					
66.	0D4A	MALAYALAM VOWEL SIGN O	ഉം	1346	ഃ
67.	0D4B	MALAYALAM VOWEL SIGN OO	ഉം	135	ഃ
68.	0D4C	MALAYALAM VOWEL SIGN AU	ഉം	246	ഃ
<b>Virama</b>					
69.	0D4D	MALAYALAM SIGN VIRAMA	ം	4	ഃ

Digits					
70.	0D57	MALAYALAM AU LENGTH MARK	ം	246	፡፡
71.	0D66	MALAYALAM DIGIT ZERO	൦	3456, 245	൦൦
72.	0D67	MALAYALAM DIGIT ONE	൧	3456, 1	൧൧
73.	0D68	MALAYALAM DIGIT TWO	൨	3456, 12	൨൨
74.	0D69	MALAYALAM DIGIT THREE	൩	3456, 14	൩൩
75.	0D6A	MALAYALAM DIGIT FOUR	൪	3456, 145	൪൪
76.	0D6B	MALAYALAM DIGIT FIVE	൫	3456, 15	൫൫
77.	0D6C	MALAYALAM DIGIT SIX	൬	3456, 124	൬൬
78.	0D6D	MALAYALAM DIGIT SEVEN	൭	3456, 1245	൭൭
79.	0D6E	MALAYALAM DIGIT EIGHT	൮	3456, 125	൮൮
80.	0D6F	MALAYALAM DIGIT NINE	൯	3456, 24	൯൯
Chillu Letters					
81.	0D7A	MALAYALAM LETTER CHILLU NN	ഓഓ	4,3456	൩൩
82.	0D7B	MALAYALAM LETTER CHILLU N	ഓ	4,1345	൩൦
83.	0D7C	MALAYALAM LETTER CHILLU RR	ഔ	4,12456	൪൪
84.	0D7D	MALAYALAM LETTER CHILLU L	ഔ	4,123	൪൦
85.	0D7E	MALAYALAM LETTER CHILLU LL	ഔ	4,456	൪൪
Special Characters					
86.	0D15, 0D4D, 0D37		ക് ഷ or ക്ഷ	12345	ൗ

87.	0D24, 0D4D, 0D30		ରୀତ	4, 2345, 1235	ମୁଦ୍ରଣ
88.	0D2E, 0D4D, 0D2A		ରୀତ	4, 134, 1234	ମୁଦ୍ରଣ
89.	0D15, 0D4D, 0D37		ରୀତ	4, 13, 12346	ମୁଦ୍ରଣ
90.	0D17, 0D4D, 0D2F		ରୀତ	4, 245, 25	ମୁଦ୍ରଣ
91.	0D19, 0D4D, 0D15		ରୀତ	4, 346, 13	ମୁଦ୍ରଣ

**Remarks:**

- The Malayalam Language, three letters such as „IRRU” that is Dot 6 in one cell and 1,2,3 and 5 in next cell, „ILU ”and „ILUU” that is dot 5 in one cell and 1,2 and 3 in the next cell, dot 6 in one cell and 1,2 and 3 in the next cell may be kept aside from Malayalam Braille since those letters are not used in Malayalam from 1970 onwards.
  - Dot 6 visargam is not largely used in Malayalam print nowadays but is used in some parts of Kerala hence it may be allowed to be continued.
  - Nukta letters will be denoted by preceding Dot 5 (፡).
  - Numbers will be written by preceding Dots 3456(∷) (Number sign) before English alphabets A to J in sequence.
  - Braille code number 3 and braille code number 4 are used as virama sign in malayalam in different ways. Dot 4 is used to form coplex letter. Example ക്ക [ 0D15, 0D4D, 0D15] braille dots 4,13,13. Dot 3 is used when virama 04D4 at the end of a word.Example ക്ക [0D15, 0D4D, 0D15, 0D4D] braille dots 4,13,13,3.

## ORIYA Unicode along with Bharati Braille Codes for ORIYA Language

S. No.	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dost)
<b>Various Signs</b>					
1.	0B00		୯		
2.	0B01	ORIYA SIGN CANDRABINDU	୯	3	ଃ
3.	0B02	ORIYA SIGN ANUSVARA	୦	56	ଃ
4.	0B03	ORIYA SIGN VISARGA	୮	6	ଃ
<b>Independent Vowels</b>					
6.	0B05	ORIYA LETTER A	ଅ	1	ଃ
7.	0B06	ORIYA LETTER AA	ଆ	345	ଃ
8.	0B07	ORIYA LETTER I	ଇ	24	ଃ
9.	0B08	ORIYA LETTER II	ଈ	35	ଃ
10.	0B09	ORIYA LETTER U	ଉ	136	ଃ
11.	0B0A	ORIYA LETTER UU	ଉ	1256	ଃ
12.	0B0B	ORIYA LETTER VOCALIC R	ର	5,1235	ଃଃ
13.	0B0C	ORIYA LETTER VOCALIC L	ଲ	5, 123	ଃଃ
14.	0B0F	ORIYA LETTER E	ୟ	15	ଃ
15.	0B10	ORIYA LETTER AI	ୟ୍ୟ	34	ଃ
16.	0B13	ORIYA LETTER O	ଓ	135	ଃ
17.	0B14	ORIYA LETTER AU	ଓୟ	246	ଃ
<b>Consonants</b>					
18.	0B15	ORIYA LETTER KA	କ	13	ଃ

19.	0B16	ORIYA LETTER KHA	ଖ	46	⋮
20.	0B17	ORIYA LETTER GA	ଗ	1245	⋮
21.	0B18	ORIYA LETTER GHA	ଘ	126	⋮
22.	0B19	ORIYA LETTER NGA	ଡ୍	346	⋮
23.	0B1A	ORIYA LETTER CA	ଚ	14	⋮
24.	0B1B	ORIYA LETTER CHA	ଛ	16	⋮
25.	0B1C	ORIYA LETTER JA	ଜ	245	⋮
26.	0B1D	ORIYA LETTER JHA	ଝ	356	⋮
27.	0B1E	ORIYA LETTER NYA	ଓ	25	⋮
28.	0B1F	ORIYA LETTER TTA	ତ	23456	⋮
29.	0B20	ORIYA LETTER TTHA	୦	2456	⋮
30.	0B21	ORIYA LETTER DDA	ଢ	1246	⋮
31.	0B22	ORIYA LETTER DDHA	ଢ୍	123456	⋮
32.	0B23	ORIYA LETTER NNA	ଣ	3456	⋮
33.	0B24	ORIYA LETTER TA	ତ	2345	⋮
34.	0B25	ORIYA LETTER THA	ଥ	1456	⋮
35.	0B26	ORIYA LETTER DA	ଦ	145	⋮
36.	0B27	ORIYA LETTER DHA	ଧ	2346	⋮
37.	0B28	ORIYA LETTER NA	ନ	1345	⋮
38.	0B2A	ORIYA LETTER PA	ପ	1234	⋮
39.	0B2B	ORIYA LETTER PHA	ଫ୍	124	⋮
40.	0B2C	ORIYA LETTER BA → 0B35 ବ୍ �oriya letter va	ବ	12	⋮
41.	0B2D	ORIYA LETTER BHA	ଭ୍	45	⋮

42.	0B2E	ORIYA LETTER MA	ମ	134	ঃ
43.	0B2F	ORIYA LETTER YA = ja	ଯ	13456	ঃ
44.	0B30	ORIYA LETTER RA	ର	1235	ঃ
45.	0B32	ORIYA LETTER LA	ଲ	123	ঃ
46.	0B33	ORIYA LETTER LLA	ଳ	456	ঃ
47.	0B35	ORIYA LETTER VA • Kui uses an alternate glyph with the dot above the small circle → 0B2C ବ oriya letter ba	ବ	1236	ঃ
48.	0B36	ORIYA LETTER SHA	ଶ	146	ঃ
49.	0B37	ORIYA LETTER SSA	ଷ	12346	ঃ
50.	0B38	ORIYA LETTER SA	ସ	234	ঃ
51.	0B39	ORIYA LETTER HA	ହ	125	ঃ

#### Various Signs

52.	0B3C	ORIYA SIGN NUKTA • for extending the alphabet to new letters	.	5	ঃ
53.	0B3D	ORIYA SIGN AVAGRAHA	{	2	ঃ

#### Dependent Vowel Signs

54.	0B3E	ORIYA VOWEL SIGN AA	I	345	ঃ
55.	0B3F	ORIYA VOWEL SIGN I	^	24	ঃ
56.	0B40	ORIYA VOWEL SIGN II	1	35	ঃ
57.	0B41	ORIYA VOWEL SIGN U	o	136	ঃ
58.	0B42	ORIYA VOWEL SIGN UU	u	1256	ঃ

59.	0B43	ORIYA VOWEL SIGN VOCALIC R	ୟ	5,1235	ঃঃ
60.	0B44	ORIYA VOWEL SIGN VOCALIC RR	୯	6, 1235	ঃঃ
61.	0B47	ORIYA VOWEL SIGN E • stands to the left of the consonant	୬	15	ঃ
62.	0B48	ORIYA VOWEL SIGN AI • pieces left of and above the consonant ≡ 0B47 ୬ 0B56	ଇ	34	ঃ

#### Two-Part Dependent Vowel Signs

63.	0B4B	ORIYA VOWEL SIGN O ≡ 0B47 ୬ 0B3E I	୦ି	135	ঃ
64.	0B4C	ORIYA VOWEL SIGN AU ≡ 0B47 ୬ 0B57	୨୦	246	ঃ

#### Virama

65.	0B4D	ORIYA SIGN VIRAMA	ଁ	4	ঃ
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#### Additional Consonants

66.	0B5F	ORIYA LETTER YYA = ya	ୟ୍ୟ	26	ঃ
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#### Additional Vowels for Sanskrit

67.	0B60	ORIYA LETTER VOCALIC RR	ର୍ର	6, 1235	ঃঃ
68.	0B61	ORIYA LETTER VOCALIC LL	ଲ୍ଲ	6, 123	ঃঃ

#### Dependent Vowels

69.	0B62	ORIYA VOWEL SIGN VOCALIC L	ା	5, 123	ঃঃ
70.	0B63	ORIYA VOWEL SIGN VOCALIC LL	ା	6, 123	ঃঃ

#### Digits

71.	0B66	ORIYA DIGIT ZERO	୦	3456, 245	ঃঃ
72.	0B67	ORIYA DIGIT ONE	୧	3456, 1	ঃঃ
73.	0B68	ORIYA DIGIT TWO	୨	3456, 12	ঃঃ
74.	0B69	ORIYA DIGIT THREE	୩	3456, 14	ঃঃ

75.	0B6A	ORIYA DIGIT FOUR	୪	3456, 145	:::
76.	0B6B	ORIYA DIGIT FIVE	୫	3456, 15	:::
77.	0B6C	ORIYA DIGIT SIX	୬	3456, 124	:::
78.	0B6D	ORIYA DIGIT SEVEN	୭	3456, 1245	:::
79.	0B6E	ORIYA DIGIT EIGHT	୮	3456, 125	:::
80.	0B6F	ORIYA DIGIT NINE	୯	3456, 24	:::

### Additional consonant

81.	0B15, 0B4D, 0B37		କ୍ଷ or କ୍ଷ	12345	::
82.	0B1C, 0B4D, 0B1E		ଙ୍ଗ or ଙ୍ଗ	156	::
83.	0B5C	ORIYA LETTER RRA	ଡ	12456	::
84.	0B5D	ORIYA LETTER RHA	ଡ	5, 12456	::::

### Remarks:

- For Odiya language, the use of dot 3 for „Apostrophe” was clashing and confusing with „Chandrabindu”. Hence, Dot „2”, will be use instead of dot „3” for Apostrophe.
- Further for sandhi words in Oriya language containing half- „a” it is suggested to use dot 5.
- Nukta letters will be denoted by preceding Dot 5 (::).
- Numbers will be written by preceding Dots 3456(::) (Number sign) before English alphabets A to J in sequence.

## Tamil Unicode along with Bharati Braille Codes for Tamil Language

S. No.	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dost)
<b>Various Signs</b>					
1.	0B83	TAMIL SIGN VISARGA = aytham • just as for the Tamil pulli, the glyph for aytham may use either dots or rings	ஃ	6	ஃ
<b>Independent Vowels</b>					
2.	0B85	TAMIL LETTER A	அ	1	ஃ
3.	0B86	TAMIL LETTER AA	ா	345	ஃ
4.	0B87	TAMIL LETTER I	இ	24	ஃ
5.	0B88	TAMIL LETTER II	ஈ	35	ஃ
6.	0B89	TAMIL LETTER U	உ	136	ஃ
7.	0B8A	TAMIL LETTER UU	ஊ	1256	ஃ
8.	0B8E	TAMIL LETTER E	எ	26	ஃ
9.	0B8F	TAMIL LETTER EE	ஏ	15	ஃ
10.	0B90	TAMIL LETTER AI	ஐ	34	ஃ
11.	0B92	TAMIL LETTER O	ஓ	1346	ஃ
12.	0B93	TAMIL LETTER OO	ஔ	135	ஃ
13.	0B94	TAMIL LETTER AU	ஒள்	246	ஃ
<b>Consonants</b>					
14.	0B95	TAMIL LETTER KA	க	13	ஃ

15.	0B99	TAMIL LETTER NGA	ங	346	ஃ
16.	0B9A	TAMIL LETTER CA	ச	14	ஃ
17.	0B9C	TAMIL LETTER JA	ஜ	245	ஃ
18.	0B9E	TAMIL LETTER NYA	ஞ	25	ஃ
19.	0B9F	TAMIL LETTER TTA	ஞ	23456	ஃ
20.	0BA3	TAMIL LETTER NNA	ண	3456	ஃ
21.	0BA4	TAMIL LETTER TA	த	2345	ஃ
22.	0BA8	TAMIL LETTER NA	ந	1345	ஃ
23.	0BA9	TAMIL LETTER NNNA	ன	56	ஃ
24.	0BAA	TAMIL LETTER PA	ஞ	1234	ஃ
25.	0BAE	TAMIL LETTER MA	ஞ	134	ஃ
26.	0BAF	TAMIL LETTER YA	ஞ	13456	ஃ
27.	0BB0	TAMIL LETTER RA	ஞ	1235	ஃ
28.	0BB1	TAMIL LETTER RRA	ஞ	12456	ஃ
29.	0BB2	TAMIL LETTER LA	ஞ	123	ஃ
30.	0BB3	TAMIL LETTER LLA	ஞ	456	ஃ
31.	0BB4	TAMIL LETTER LLLA	ஞ	12356	ஃ
32.	0BB5	TAMIL LETTER VA	ஞ	1236	ஃ
33.	0BB6	TAMIL LETTER SHA	ஞ	146	ஃ
34.	0BB7	TAMIL LETTER SSA	ஞ	12346	ஃ
35.	0BB8	TAMIL LETTER SA	ஞ	234	ஃ
36.	0BB9	TAMIL LETTER HA	ஞ	125	ஃ
37.	0B95, 0BCD, 0BB7	TAMIL LETTER KSSA	கஞ	12345	ஃ

Dependent Vowel Signs					
38.	0BBE	TAMIL VOWEL SIGN AA	ா	345	ஃ
39.	0BBF	TAMIL VOWEL SIGN I	ி	24	ஃ
40.	0BC0	TAMIL VOWEL SIGN II	ீ	35	ஃ
41.	0BC1	TAMIL VOWEL SIGN U	உ	136	ஃ
42.	0BC2	TAMIL VOWEL SIGN UU	ஊ	1256	ஃ
43.	0BC6	TAMIL VOWEL SIGN E	ே	26	ஃ
44.	0BC7	TAMIL VOWEL SIGN EE	ஏ	15	ஃ
45.	0BC8	TAMIL VOWEL SIGN AI	ஐ	34	ஃ
Two-Part dependent vowel Signs					
46.	0BCA	TAMIL VOWEL SIGN O	ஓா	1346	ஃ
47.	0BCB	TAMIL VOWEL SIGN OO	ஓஓ	135	ஃ
48.	0BCC	TAMIL VOWEL SIGN AU	ஓஉ	246	ஃ
Virama					
49.	0BCD	TAMIL SIGN VIRAMA	·	4	ஃ
50.	0BD7	TAMIL AU LENGTH MARK	ஏ	246	ஃ
Digits					
51.	0BE6	TAMIL DIGIT ZERO	0	3456, 245	ஃஃ
52.	0BE7	TAMIL DIGIT ONE	ங	3456, 1	ஃஃ
53.	0BE8	TAMIL DIGIT TWO	ஒ	3456, 12	ஃஃ
54.	0BE9	TAMIL DIGIT THREE	ழ	3456, 14	ஃஃ

55.	0BEA	TAMIL DIGIT FOUR	ஃ	3456, 145	ஃ
56.	0BEB	TAMIL DIGIT FIVE	ஃ	3456, 15	ஃ
57.	0BEC	TAMIL DIGIT SIX	ஃ	3456, 124	ஃ
58.	0BED	TAMIL DIGIT SEVEN	ஃ	3456, 1245	ஃ
59.	0BEE	TAMIL DIGIT EIGHT	ஃ	3456, 125	ஃ
60.	0BEF	TAMIL DIGIT NINE	ஃ	3456, 24	ஃ

### Tamil Numerics

61.	0BF0	TAMIL NUMBER TEN	ஃ	3456, 1, 245	ஃ
62.	0BF1	TAMIL NUMBER ONE HUNDRED	ஃ	3456, 1, 245, 245	ஃ
63.	0BF2	TAMIL NUMBER ONE THOUSAND	ஃ	3456, 1, 245, 245, 245	ஃ
64.	0BB6, 0BCD, 0BB0, 0BC0	Tamil letter shree	ஃ	4, 234, 1235, 35	ஃ

**Remarks:**

- Nukta letters will be denoted by preceding Dot 5 (ஃ).
- Numbers will be written by preceding Dots 3456(ஃ) (Number sign) before English alphabets A to J in sequence.

## Telugu Unicode along with Bharati Braille Codes for Telgu Language

S. No.	Unicode	Description	Print Character	Braille Code (Numbers)	Braille Code (Dost)
<b>Various Signs</b>					
1.	0C01	TELUGU SIGN CANDRABINDU = arasunna • indicates a contextually elided nasal	ం	3	ঃ
2.	0C02	TELUGU SIGN ANUSVARA = sunna • used in Prakrit language texts to indicate gemination of the following consonant	ଓ	56	ঃ
3.	0C03	TELUGU SIGN VISARGA	ঃ	6	ঃ
4.	0C05	TELUGU LETTER A	ା	1	ঃ
5.	0C06	TELUGU LETTER AA	ାା	345	ঃ
6.	0C07	TELUGU LETTER I	ି	24	ঃ
7.	0C08	TELUGU LETTER II	ିି	35	ঃ
8.	0C09	TELUGU LETTER U	ୁ	136	ঃ
9.	0C0A	TELUGU LETTER UU	ୁୁ	1256	ঃ
10.	0C0B	TELUGU LETTER VOCALIC R	ୟ	5, 1235	ঃঃ
11.	0C0E	TELUGU LETTER E	ୱ	26	ঃ
12.	0C0F	TELUGU LETTER EE	ୱୱ	15	ঃ
13.	0C10	TELUGU LETTER AI	ୱୀ	34	ঃ
14.	0C12	TELUGU LETTER O	ୱୁ	1346	ঃ

15.	0C13	TELUGU LETTER OO	ఊ	135	::
16.	0C14	TELUGU LETTER AU	ఔ	246	::
<b>Consonants</b>					
17.	0C15	TELUGU LETTER KA	క	13	::
18.	0C16	TELUGU LETTER KHA	ఖ	46	::
19.	0C17	TELUGU LETTER GA	గ	1245	::
20.	0C18	TELUGU LETTER GHA	ఘ	126	::
20.	0C19	TELUGU LETTER NGA	ఙ	346	::
21.	0C1A	TELUGU LETTER CA	చ	14	::
22.	0C1B	TELUGU LETTER CHA	ఛ	16	::
23.	0C1C	TELUGU LETTER JA	జ	245	::
24.	0C1D	TELUGU LETTER JHA	య	356	::
25.	0C1E	TELUGU LETTER NYA	ఞ	25	::
26.	0C1F	TELUGU LETTER TTA	ట	23456	::
27.	0C20	TELUGU LETTER TTHA	ఠ	2456	::
28.	0C21	TELUGU LETTER DDA	డ	1246	::
29.	0C22	TELUGU LETTER DDHA	డు	123456	::
30.	0C23	TELUGU LETTER NNA	న	3456	::
31.	0C24	TELUGU LETTER TA	త	2345	::
32.	0C25	TELUGU LETTER THA	థ	1456	::
33.	0C26	TELUGU LETTER DA	ద	145	::
34.	0C27	TELUGU LETTER DHA	ధ	2346	::
35.	0C28	TELUGU LETTER NA	ను	1345	::

36.	0C2A	TELUGU LETTER PA	ప	1234	::
37.	0C2B	TELUGU LETTER PHA	ఫ	124	::
38.	0C2C	TELUGU LETTER BA	బ	12	::
39.	0C2D	TELUGU LETTER BHA	భ	45	::
40.	0C2E	TELUGU LETTER MA	మ	134	::
41.	0C2F	TELUGU LETTER YA	య	13456	::
42.	0C30	TELUGU LETTER RA	ర	1235	::
43.	0C31	TELUGU LETTER RRA	౩	12456	::
44.	0C32	TELUGU LETTER LA	ల	123	::
45.	0C33	TELUGU LETTER LLA	ల్ల	456	::
46.	0C35	TELUGU LETTER VA	వ	1236	::
47.	0C36	TELUGU LETTER SHA	శ	146	::
48.	0C37	TELUGU LETTER SSA	శ్శ	12346	::
49.	0C38	TELUGU LETTER SA	స	234	::
50.	0C39	TELUGU LETTER HA	హ	125	::

#### Addition for Sanskrit

51.	0C3D	TELUGU SIGN AVAGRAHA	౦	2	::
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#### Dependent Vowel Signs

52.	0C3E	TELUGU VOWEL SIGN AA	ా	345	::
53.	0C3F	TELUGU VOWEL SIGN I	ి	24	::
54.	0C40	TELUGU VOWEL SIGN II	ు	35	::
55.	0C41	TELUGU VOWEL SIGN U	౔	136	::
56.	0C42	TELUGU VOWEL SIGN UU	ౕ	1256	::

57.	0C43	TELUGU VOWEL SIGN VOCALIC R	ఽ	5, 1235	॥॥
58.	0C44	TELUGU VOWEL SIGN VOCALIC RR	ఽ	6, 1235	॥॥
59.	0C46	TELUGU VOWEL SIGN E	ు	26	॥
60.	0C47	TELUGU VOWEL SIGN EE	్స	15	॥
61.	0C48	TELUGU VOWEL SIGN AI	్ప	34	॥
62.	0C4A	TELUGU VOWEL SIGN O	్మ	1346	॥
63.	0C4B	TELUGU VOWEL SIGN OO	్మ్	135	॥
64.	0C4C	TELUGU VOWEL SIGN AU	్ప్	246	॥
<b>Virama</b>					
65.	0C4D	TELUGU SIGN VIRAMA	్	4	॥
<b>Historic Phonetic Variants</b>					
66.	0C58	TELUGU LETTER TSA	ఁ	6, 14	॥॥
67.	0C59	TELUGU LETTER DZA	ఁ	6, 245	॥॥
<b>Additional Vowels for Sanskrit</b>					
68.	0C60	TELUGU LETTER VOCALIC RR	ఔ్	6, 1235	॥॥
<b>Dependent Vowels</b>					
69.	0C66	TELUGU DIGIT ZERO	ఠ	3456, 245	॥॥
70.	0C67	TELUGU DIGIT ONE	ఠ	3456, 1	॥॥
71.	0C68	TELUGU DIGIT TWO	ఠ	3456, 12	॥॥
72.	0C69	TELUGU DIGIT THREE	ఠ	3456, 14	॥॥
73.	0C6A	TELUGU DIGIT FOUR	ఠ	3456, 145	॥॥

74.	0C6B	TELUGU DIGIT FIVE	య	3456, 15	:::
75.	0C6C	TELUGU DIGIT SIX	౬	3456, 124	:::
76.	0C6D	TELUGU DIGIT SEVEN	౭	3456, 1245	:::
77.	0C6E	TELUGU DIGIT EIGHT	౮	3456, 125	:::
78.	0C6F	TELUGU DIGIT NINE	౯	3456, 24	:::
79.	0C15, 0C4D, 0C37		క్ ఇ or కి్	12345	::

**Remarks:**

- Nukta letters will be denoted by preceding Dot 5 (::).
- Numbers will be written by preceding Dots 3456 (::) (Number sign) before English alphabets A to J in sequence.

