**Neo-Brahmi Generation Panel   
Cross-Script Variant Analysis**

Version 1.0

Date 2018-02-13

# Contents

[**1.** **Cross-Script Variant Analysis Devanagari – Gurmukhi** 2](#_Toc506305307)

[**2.** **Cross-Script Variant Analysis Devanagari – Gujarati** 5](#_Toc506305308)

[**3.** **Cross-Script Variant Analysis Devanagari – Telugu** 6](#_Toc506305309)

[**4.** **Cross-Script Variant Analysis Devanagari – Kannada** 7](#_Toc506305310)

[**5.** **Cross-Script Variant Analysis Devanagari – Malayalam** 8](#_Toc506305311)

[**6.** **Cross-Script Variant Analysis Devanagari – Sinhala** 9](#_Toc506305312)

[**7.** **Cross-Script Variant Analysis Gujarati – Oriya** 10](#_Toc506305313)

[**8.** **Cross-Script Variant Analysis Tamil – Malayalam** 11](#_Toc506305314)

[**9.** **Cross-Script Variant Analysis Telugu – Kannada** 12](#_Toc506305315)

[**10.** **Cross-Script Variant Analysis Telugu – Malayalam** 14](#_Toc506305316)

[**11.** **Cross-Script Variant Analysis Telugu – Sinhala** 15](#_Toc506305317)

# **Cross-Script Variant Analysis Devanagari – Gurmukhi**

## Pending Issues

| **#** | **Devanagari** | **Gurmukhi** | **Possible Resolution** |
| --- | --- | --- | --- |
| 1 | प्टॆ (092A 094D 091F 0946) | ਏ (0A0F) | Option A: These are variant code points.  Option B: These are similar code points.  Option C: These are non-confusable code points. |

These pairs of code points have another related case प्टे (092A 094D 091F 0947) ਏ (0A0F), which are defined as variant code points. Therefore, if option B or C is selected. The NBGP member also need to decide whether to change the resolution for the related pairs.

## Variant code points

| **#** | **Devanagari** | **Gurmukhi** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ं (0902) | ਂ (0A02) | Variants |
| 2 | इ (0907) | ਙ (0A19) | Variants |
| 3 | उ (0909) | ਤ (0A24) | Variants |
| 4 | ग (0917) | ਗ (0A17) | Variants |
| 5 | घ (0918) | ਬ (0A2C) | Variants |
| 6 | ट (091F) | ਟ (0A1F) | Variants |
| 7 | ठ (0920) | ਠ (0A20) | Variants |
| 8 | ढ (0922) | ਫ (0A2B) | Variants |
| 9 | त (0924) | ਜ (0A1C) | Variants |
| 10 | प (092A) | ਧ (0A27) | Variants |
| 11 | भ (092D) | ਮ (0A2E) | Variants |
| 12 | म (092E) | ਸ (0A38) | Variants |
| 13 | य (092F) | ਧ (0A27) | Variants |
| 14 | व (0935) | ਕ (0A15) | Variants |
| 15 | ह (0939) | ਵ (0A35) | Variants |
| 16 | ॗ (0957) | ੂ (OA42) | Variants |
| 17 | ॖ(0956) | ੁ(OA41) | Variants |
| 18 | ि (093F) | ਿ (0A3F) | Variants |
| 19 | ी (0940) | ੀ (0A40) | Variants |
| 20 | े (0947) | ੇ (0A47) | Variants |
| 21 | ै (0948) | ੈ (0A48) | Variants |
| 22 | प्टि (092A 094D 091F 093F) | ਇ (0A07) | Variants |
| 23 | प्टी (092A 094D 091F 0940) | ਈ (0A08) | Variants |
| 24 | प्टे (092A 094D 091F 0947) | ਏ (0A0F) | Variants |
| 25 | त्त (0924 094D 0924) | ਜ (0A1C) | Variants |
| 26 | ॅ(0945) | ੱ (0A71) | Variants |
| 27 | े (0946) | ੇ (0A47) | Variants |

## Similar code points

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Devanagari** | **Gurmukhi** | **Resolution** |
| 1 | ठ (0920) | ਨ (0A28) | Appendix - Similar |
| 2 | ठ (0920) | ਰ (0A30) | Appendix - Similar |
| 3 | ड (0921) | ਡ (0A21) | Appendix - Similar |
| 4 | ड (0921) | ਡ (0A21) | Appendix - Similar |
| 5 | ड (0921) | ਤ (0A24) | Appendix - Similar |

## Non-confusable code points

| **#** | **Devanagari** | **Gurmukhi** | **Resolution** | **Note** |
| --- | --- | --- | --- | --- |
| 1 | उ (0909) | ਭ (0A2D) | Remove - no similar |  |
| 2 | ट (091F) | ਫ (0A2B) | Remove - no similar |  |
| 3 | ढ (0922) | ਢ (0A22) | Remove - no similar | resolved during NBGP Meeting 19 Jan 18 |
| 4 | प (092A) | ਪ (0A2A) | Remove - no similar |  |
| 5 | म (092E) | ਮ (0A2E) | Remove - no similar |  |
| 6 | य (092F) | ਪ (0A2A ) | Remove - no similar |  |
| 7 | र (0930) | ਕ (0A15) | Remove - no similar | Based on Akshat email to NBGP 31 Jan, agreed by Lehal and Jay |
| 8 | र (0930) | ਦ (0A26) | Remove - no similar |  |
| 9 | ष (0937) | ਖ (0A16) | Remove - no similar |  |
| 10 | ष (0937) | ਥ (0A25) | Remove - no similar |  |
| 11 | ड (0921) | ਛ (0A1B) | Remove - no similar | resolved during NBGP Meeting 19 Jan 18 |
| 12 | ढ (0922) | ਛ (0A1B) | Remove - no similar | resolved during NBGP Meeting 19 Jan 18 |
| 13 | ट (091F) | ਦ (0A26) | Remove - no similar | resolved during NBGP Meeting 19 Jan 18 |

## Other cases

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Devanagari | Gurmukhi | Resolution | Note |
|  | प्ट (092A 094D 091F) | ੲ (0A72) | Remove | as 0A72 is out of repertoire |

# **Cross-Script Variant Analysis Devanagari – Gujarati**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Devanagari** | **Gujarati** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ः (0903) | ઃ (0A83) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Devanagari – Telugu**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Devanagari** | **Telugu** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ः (0903) | ః (0C03) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Devanagari – Kannada**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Devanagari** | **Kannada** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ः (0903) | ಃ (0C83) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Devanagari – Malayalam**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Devanagari** | **Malayalam** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ः (0903) | ഃ (0D03) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Devanagari – Sinhala**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Devanagari** | **Sinhala** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ः (0903) | ඃ (0D83) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Gujarati – Oriya**

## Pending Issues

-None-

## Variant code points

-None-

## Similar code points

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Gujarati** | **Oriya** | **Resolution** |
| 1 | ઘ (0A98) | ପ (0B2A) | Appendix - Similar |
| 2 | થ (0AA5) | ଥ (0B25) | Appendix - Similar |

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Tamil – Malayalam**

## Pending Issues

-None-

## Variant code points

| **#** | **Tamil** | **Malayalam** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ஜ (0B9C) | ജ (0D1C) | Variants |
| 2 | வ (0BB5) | ഖ (0D16) | Variants |
| 3 | ம (0BAE) | ഥ (0D25) | Variants |
| 4 | ி (0BBF) | ി (0D3F) | Variants |
| 5 | ெ (0BC6) | െ (0D46) | Variants |
| 6 | ே (0BC7) | േ (0D47) | Variants |

## Similar code points

-None-

## Non-confusable code points

| **#** | **Tamil** | **Malayalam** | **Resolution** | **Note** |
| --- | --- | --- | --- | --- |
| 1 | ஸ (0BB8) | സ (0D38) | Remove - no similar | resolved to Yellow during NBGP Meeting 19 Jan 18 |

## Other cases

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Tamil** | **Malayalam** | **Resolution** | **Note** |
|  | ் (0BCD) | ൎ (0D4E) | Remove | 0D4E is not permitted in MSR |

# **Cross-Script Variant Analysis Telugu – Kannada**

## Pending Issues

-None-

## Variant code points

| **#** | **Telugu** | **Kannada** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ం (0C02) | ಂ (0C82) | Variants |
| 2 | ః (0C03) | ಃ (0C83) | Variants |
| 3 | అ (0C05) | ಅ (0C85) | Variants |
| 4 | ఆ (0C06 ) | ಆ (0C86) | Variants |
| 5 | ఇ (0C07) | ಇ (0C87) | Variants |
| 6 | ఈ (0C08) | ಈ (0C88) | Variants |
| 7 | ఐ (0C10) | ಐ (0C90) | Variants |
| 8 | ఒ (0C12) | ಒ (0C92) | Variants |
| 9 | ఓ (0C13) | ಓ (0C93) | Variants |
| 10 | ఔ (0C14) | ಔ (0C94) | Variants |
| 11 | ఖ (0C16) | ಖ (0C96) | Variants |
| 12 | గ (0C17) | ಗ (0C97) | Variants |
| 13 | జ (0C1C) | ಜ (0C9C) | Variants |
| 14 | ఝ (0C1D) | ಝ (0C9D) | Variants |
| 15 | ఞ (0C1E) | ಞ (0C9E) | Variants |
| 16 | ట (0C1F) | ಟ (0C9F) | Variants |
| 17 | ఠ (0C20) | ಠ (0CA0) | Variants |
| 18 | డ (0C21) | ಡ (0CA1) | Variants |
| 19 | ఢ (0C22) | ಢ (0CA2) | Variants |
| 20 | ణ (0C23) | ಣ (0CA3) | Variants |
| 21 | థ (0C25) | ಥ (0CA5) | Variants |
| 22 | ద (0C26) | ದ (0CA6) | Variants |
| 23 | ధ (0C27) | ಧ (0CA7) | Variants |
| 24 | న (0C28) | ನ (0CA8) | Variants |
| 25 | బ (0C2C) | ಬ (0CAC) | Variants |
| 26 | భ (0C2D) | ಭ (0CAD) | Variants |
| 27 | మ (0C2E) | ಮ (0CAE) | Variants |
| 28 | య (0C2F) | ಯ (0CAF) | Variants |
| 29 | ర (0C30) | ರ (0CB0) | Variants |
| 30 | ల (0C32) | ಲ (0CB2) | Variants |
| 31 | ళ (0C33) | ಳ (0CB3) | Variants |
| 32 | ి (0C3F) | ಿ (0CBF) | Variants |
| 33 | ు (0C41) | ು (0CC1) | Variants |
| 34 | ృ (0C43) | ೃ (0CC3) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Telugu – Malayalam**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Telugu** | **Malayalam** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ం (0C02) | ം (0D02) | Variants |
| 2 | ః (0C03) | ഃ (0D03) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-

# **Cross-Script Variant Analysis Telugu – Sinhala**

## Pending Issues

The IP suggested that if there is a few number of code points which look similar, but cannot form the whole label with two different scripts and look the same, it is ok to note the discussion and not define them as variant code points.

## Variant code points

| **#** | **Telugu** | **Sinhala** | **Resolution** |
| --- | --- | --- | --- |
| 1 | ం (0C02) | ං (0D82) | Variants |
| 2 | ః (0C03) | ඃ (0D83) | Variants |
| 3 | ర (0C30) | ර් (0DBB+0DCA) | Variants |

## Similar code points

-None-

## Non-confusable code points

-None-

## Other cases

-None-