

**Proposed**

**Code Point Repertoire**

**Neo-brahmi GP**

**Draft: Bangla**

## Preamble:

This document proposes the code-point repertoire for Bangla.

The color code convention followed is as follows:

| Color | Disposition   |
|-------|---|
|       | Disallowed - As per IDNA protocol                           |
|       | Disallowed - As per Maximal Starting Repertoire             |
|       | Disallowed - As per Neo-brahmi GP recommendation (Proposed) |
|       | Allowed   |

The document is based on the MSR-2 ([link](#)) released by the Integration Panel. For more elaborate documentation on the MSR-2 you refer the below links.

1. Maximal Starting Repertoire - MSR-2-Overview and Rationale-20150414 ([Link](#))
2. MSR-2-Annotated-non-CJK-Tables-20150413 ([Link](#))
3. MSR-2-Repertoire+WLE-Rules-20150413 ([Link](#))

For the current work-at hand, visiting the links 1 and 2 should be sufficient.

The MSR-2 is based on Unicode 7.0 and the charts that we have given are Unicode 6.3 due to the charting software limitation. However the single character (U+0980 - BENGALI ANJI

Also called as siddham or siddhirastu) added to the Bengali script block in Unicode 7.0 is barred by the Integration Panel and is marked as such in pink color.

The color coding conventions followed are similar to the ones used in the MSR-2 with the addition of blue marking to the characters barred by the Neo-brahmi GP.

The document is structured as,

1. Code-point repertoire
2. Rationale for exclusion

|   | 098       | 099       | 09A       | 09B       | 09C        | 09D        | 09E        | 09F       |
|---|-----------|-----------|-----------|-----------|------------|------------|------------|-----------|
| 0 |           | ঐ<br>0990 | ঊ<br>09A0 | ঋ<br>09B0 | ঌ<br>09C0  |            | ঍<br>09E0  | ঎<br>09F0 |
| 1 | এ<br>0981 |           | ড<br>09A1 |           | ঢ়<br>09C1 |            | ঢ়<br>09E1 | ঞ<br>09F1 |
| 2 | ঐ<br>0982 |           | ঢ<br>09A2 | ণ<br>09B2 | ত<br>09C2  |            | ত<br>09E2  | থ<br>09F2 |
| 3 | ঊ<br>0983 | ও<br>0993 | ব<br>09A3 |           | ত<br>09C3  |            | ত<br>09E3  | ড<br>09F3 |
| 4 |           | ঔ<br>0994 | ত<br>09A4 |           | ত<br>09C4  |            |            | থ<br>09F4 |
| 5 | অ<br>0985 | ক<br>0995 | খ<br>09A5 |           |            |            |            | গ<br>09F5 |
| 6 | আ<br>0986 | খ<br>0996 | দ<br>09A6 | শ<br>09B6 |            |            | ০<br>09E6  | ঙ<br>09F6 |
| 7 | ঈ<br>0987 | গ<br>0997 | ধ<br>09A7 | ষ<br>09B7 | ে<br>09C7  | ৌ<br>09D7  | ১<br>09E7  | ।<br>09F7 |
| 8 | ঐ<br>0988 | ঘ<br>0998 | ন<br>09A8 | স<br>09B8 | ৈ<br>09C8  |            | ২<br>09E8  | ৮<br>09F8 |
| 9 | ঊ<br>0989 | ঙ<br>0999 |           | হ<br>09B9 |            |            | ৩<br>09E9  | ০<br>09F9 |
| A | ঋ<br>098A | চ<br>099A | প<br>09AA |           |            |            | ৪<br>09EA  | ৩<br>09FA |
| B | ঌ<br>098B | ছ<br>099B | ফ<br>09AB |           | ৌ<br>09CB  |            | ৫<br>09EB  |           |
| C | ঍<br>098C | জ<br>099C | ব<br>09AC | ়<br>09BC | ৌ<br>09CC  | ড়<br>09DC | ড<br>09EC  |           |
| D |           | ঝ<br>099D | ভ<br>09AD |           | ্ত<br>09CD | ড়<br>09DD | ৭<br>09ED  |           |
| E |           | ঞ<br>099E | ম<br>09AE | া<br>09BE |            |            | ঢ<br>09EE  |           |
| F | ঐ<br>098F | ট<br>099F | ষ<br>09AF | ি<br>09BF |            | য়<br>09DF | ঈ<br>09EF  |           |

**Various signs**

|      |   |                          |
|------|---|--------------------------|
| 0981 | ◌ | BENGALI SIGN CANDRABINDU |
| 0982 | ◌ | BENGALI SIGN ANUSVARA    |
| 0983 | ◌ | BENGALI SIGN VISARGA     |

**Independent vowels**

|      |   |                          |
|------|---|--------------------------|
| 0985 | অ | BENGALI LETTER A         |
| 0986 | আ | BENGALI LETTER AA        |
| 0987 | ই | BENGALI LETTER I         |
| 0988 | ঈ | BENGALI LETTER II        |
| 0989 | উ | BENGALI LETTER U         |
| 098A | ঊ | BENGALI LETTER UU        |
| 098B | ঋ | BENGALI LETTER VOCALIC R |
| 098C | ৠ | BENGALI LETTER VOCALIC L |
| 098D | ◌ | <reserved>               |
| 098E | ◌ | <reserved>               |
| 098F | এ | BENGALI LETTER E         |
| 0990 | ঐ | BENGALI LETTER AI        |
| 0991 | ◌ | <reserved>               |
| 0992 | ◌ | <reserved>               |
| 0993 | ও | BENGALI LETTER O         |
| 0994 | ঔ | BENGALI LETTER AU        |

**Consonants**

|      |   |                                       |
|------|---|---------------------------------------|
| 0995 | ক | BENGALI LETTER KA                     |
| 0996 | খ | BENGALI LETTER KHA                    |
| 0997 | গ | BENGALI LETTER GA                     |
| 0998 | ঘ | BENGALI LETTER GHHA                   |
| 0999 | ঙ | BENGALI LETTER NGA                    |
| 099A | চ | BENGALI LETTER CA                     |
| 099B | ছ | BENGALI LETTER CHA                    |
| 099C | জ | BENGALI LETTER JA                     |
| 099D | ঝ | BENGALI LETTER JHA                    |
| 099E | ঞ | BENGALI LETTER NYA                    |
| 099F | ট | BENGALI LETTER TTA                    |
| 09A0 | ঠ | BENGALI LETTER TTHA                   |
| 09A1 | ড | BENGALI LETTER DDA                    |
| 09A2 | ঢ | BENGALI LETTER DDHA                   |
| 09A3 | ণ | BENGALI LETTER NNA                    |
| 09A4 | ত | BENGALI LETTER TA                     |
| 09A5 | থ | BENGALI LETTER THA                    |
| 09A6 | দ | BENGALI LETTER DA                     |
| 09A7 | ধ | BENGALI LETTER DHA                    |
| 09A8 | ন | BENGALI LETTER NA                     |
| 09A9 | ◌ | <reserved>                            |
| 09AA | প | BENGALI LETTER PA                     |
| 09AB | ফ | BENGALI LETTER PHA                    |
| 09AC | ব | BENGALI LETTER BA<br>= Bengali va, wa |
| 09AD | ভ | BENGALI LETTER BHA                    |
| 09AE | ম | BENGALI LETTER MA                     |
| 09AF | য | BENGALI LETTER YA                     |
| 09B0 | র | BENGALI LETTER RA                     |
| 09B1 | ◌ | <reserved>                            |
| 09B2 | ল | BENGALI LETTER LA                     |
| 09B3 | ◌ | <reserved>                            |
| 09B4 | ◌ | <reserved>                            |
| 09B5 | ◌ | <reserved>                            |
| 09B6 | শ | BENGALI LETTER SHA                    |
| 09B7 | ষ | BENGALI LETTER SSA                    |
| 09B8 | স | BENGALI LETTER SA                     |
| 09B9 | হ | BENGALI LETTER HA                     |

**Various signs**

|      |   |   |
|------|---|---|
| 09BC | ◌ | BENGALI SIGN NUKTA<br>• for extending the alphabet to new letters |
| 09BD | ◌ | BENGALI SIGN AVAGRAHA   |

**Dependent vowel signs**

|      |   |  |
|------|---|--|
| 09BE | ◌ | BENGALI VOWEL SIGN AA  |
| 09BF | ◌ | BENGALI VOWEL SIGN I<br>• stands to the left of the consonant  |
| 09C0 | ◌ | BENGALI VOWEL SIGN II  |
| 09C1 | ◌ | BENGALI VOWEL SIGN U   |
| 09C2 | ◌ | BENGALI VOWEL SIGN UU  |
| 09C3 | ◌ | BENGALI VOWEL SIGN VOCALIC R                                   |
| 09C4 | ◌ | BENGALI VOWEL SIGN VOCALIC RR                                  |
| 09C5 | ◌ | <reserved>   |
| 09C6 | ◌ | <reserved>   |
| 09C7 | ◌ | BENGALI VOWEL SIGN E<br>• stands to the left of the consonant  |
| 09C8 | ◌ | BENGALI VOWEL SIGN AI<br>• 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.

|      |    |  |
|------|----|--|
| 09CB | ◌◌ | BENGALI VOWEL SIGN O<br>≡ 09C7 ◌ 09BE ◌  |
| 09CC | ◌◌ | BENGALI VOWEL SIGN AU<br>≡ 09C7 ◌ 09D7 ◌ |

**Virama**

|      |   |   |
|------|---|---|
| 09CD | ◌ | BENGALI SIGN VIRAMA<br>= hasant (Bengali term for halant) |
|------|---|---|

**Additional consonant**

|      |  |   |
|------|--|---|
| 09CE |  | BENGALI LETTER KHANDA TA<br>• a dead consonant form of ta, without implicit vowel, used in some sequences |
|------|--|---|

**Sign**

|      |   |                        |
|------|---|------------------------|
| 09D7 | ◌ | BENGALI AU LENGTH MARK |
|------|---|------------------------|

**Additional consonants**

|      |   |                                       |
|------|---|---------------------------------------|
| 09DC | ◌ | BENGALI LETTER RRA<br>≡ 09A1 ◌ 09BC ◌ |
| 09DD | ◌ | BENGALI LETTER RHA<br>≡ 09A2 ◌ 09BC ◌ |
| 09DE | ◌ | <reserved>                            |
| 09DF | ◌ | BENGALI LETTER YYA<br>≡ 09AF ◌ 09BC ◌ |

**Additional vowels for Sanskrit**

|      |   |                               |
|------|---|-------------------------------|
| 09E0 | ◌ | BENGALI LETTER VOCALIC RR     |
| 09E1 | ◌ | BENGALI LETTER VOCALIC LL     |
| 09E2 | ◌ | BENGALI VOWEL SIGN VOCALIC L  |
| 09E3 | ◌ | BENGALI VOWEL SIGN VOCALIC LL |

**Reserved**

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

|      |   |   |
|------|---|---|
| 09E4 | ◌ | <reserved><br>→ 0964   devanagari danda         |
| 09E5 | ◌ | <reserved><br>→ 0965    devanagari double danda |

**Digits**

|      |   |                    |
|------|---|--------------------|
| 09E6 | ০ | BENGALI DIGIT ZERO |
| 09E7 | ১ | BENGALI DIGIT ONE  |

|      |   |                     |
|------|---|---------------------|
| 09E8 | ২ | BENGALI DIGIT TWO   |
| 09E9 | ৩ | BENGALI DIGIT THREE |
| 09EA | ৪ | BENGALI DIGIT FOUR  |
| 09EB | ৫ | BENGALI DIGIT FIVE  |
| 09EC | ৬ | BENGALI DIGIT SIX   |
| 09ED | ৭ | BENGALI DIGIT SEVEN |
| 09EE | ৮ | BENGALI DIGIT EIGHT |
| 09EF | ৯ | BENGALI DIGIT NINE  |

### Additions for Assamese

|      |   |  |
|------|---|--|
| 09F0 | ৺ | BENGALI LETTER RA WITH MIDDLE DIAGONAL   |
| 09F1 | ৻ | BENGALI LETTER RA WITH LOWER DIAGONAL<br>= bengali letter va with lower diagonal (1.0) |

### Currency signs

|      |   |                    |
|------|---|--------------------|
| 09F2 | ৳ | BENGALI RUPEE MARK |
| 09F3 | ট | BENGALI RUPEE SIGN |

### Historic symbols for fractional values

|      |   |  |
|------|---|--|
| 09F4 | ৳ | BENGALI CURRENCY NUMERATOR ONE<br>• not in current usage   |
| 09F5 | ৳ | BENGALI CURRENCY NUMERATOR TWO<br>• not in current usage   |
| 09F6 | ৳ | BENGALI CURRENCY NUMERATOR THREE<br>• not in current usage |
| 09F7 | ৳ | BENGALI CURRENCY NUMERATOR FOUR                            |
| 09F8 | ৳ | BENGALI CURRENCY NUMERATOR ONE LESS THAN THE DENOMINATOR   |
| 09F9 | ৳ | BENGALI CURRENCY DENOMINATOR SIXTEEN                       |

### Sign

|      |   |                |
|------|---|----------------|
| 09FA | ৳ | BENGALI ISSHAR |
|------|---|----------------|

### Currency sign

|      |  |                    |
|------|--|--------------------|
| 09FB |  | BENGALI GANDA MARK |
|------|--|--------------------|

## Rationale:

| <b>Bangla:</b>    |  |                                    |
|-------------------|--|------------------------------------|
| <b>Code Point</b> | <b>Name</b>                            | <b>Rationale for exclusion</b>     |
| U+09C4            | BENGALI VOWEL SIGN VOCALIC RR          | Not in modern language usage       |
| U+09D7            | BENGALI AU LENGTH MARK                 | Not in modern language usage       |
| U+09F0            | BENGALI LETTER RA WITH MIDDLE DIAGONAL | Not part of language character set |
| U+09F1            | BENGALI LETTER RA WITH LOWER DIAGONAL  | Not part of language character set |