

# Transliteration Maps for Bengali fonts ItxBeng and BWTI

ittrans

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*bwti* font developed by Abhijit Das (Barda)

*bwti* font support added by Jaijeet Roychowdhury

## 1 Fonts Available

There are currently two Bengali fonts available with ITRANS: *bwti* and *ItxBeng*. The *bwti* fonts are written in METAFONT, while *ItxBeng* is a PostScript font. At present, the *bwti* fonts have a complete set of Bengali characters including all the standard conjunct consonants (যুক্তাক্ষরস), while the *ItxBeng* fonts are missing some characters. *ItxBeng*, however, works with the T<sub>E</sub>X, direct PostScript and HTML interfaces of ITRANS, while *bwti* is limited to only the T<sub>E</sub>X interface.

### 1.1 T<sub>E</sub>X Interface

#### 1.1.1 *bwti* font

*bwti* is a family of METAFONT fonts defined in the files *bnr10.mf* and *bns10.mf*. They can be used only with the T<sub>E</sub>X interface.

**bnr10** This is the basic *bwti* Bengali font.

**bns10** This is the slanted version of *bwti*.

These can be used at any font size in your document. In this document the following line was used for loading the font: `\newfont{\bnr}{bnr10 at 14pt}`.

#### 1.1.2 *ItxBeng* font

*ItxBeng* is a PostScript font whose specification is in the file *itxbeng.pfa* or *itxbeng.pfb*. It is a user-defined Type I PostScript font. Four styles, transformations on the basic *ItxBeng* font, are bundled with the ittrans package. Their names (in the T<sub>E</sub>X interface) are *itxbeng*, *itxbengo*, *itxbngrc*, and *itxbngre*.

**itxbeng** This is the basic *ItxBeng* Bengali font. There are some other fonts available, derived by transforming this font.

**itxbengo** This is the slanted version of *itxbeng*.

**itxbngrc** A scaled down, compressed version (along the x-axis) of the basic font is available as *itxbeng*.

**itxbngre** This is heavier than *itxbeng*, to be used as a bold version.

Since these are PostScript fonts, you can use them at any font size in your document. In this document the following line was used for loading the font:

`\newfont{\itxbengf}{itxbeng at 15pt}`.

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<sup>0</sup>Last modification: December 4, 2009

## 1.2 Direct Textual Interface: HTML Output (*ItxBeng* only)

This mode is provided for generating text that can be displayed on any WWW browser such as Netscape (version 3.0 or later). See the example file provided (ITRANS/doc/s1html.itx) on examples of how to use this mode. See the manual idoc.itx for information on the Direct Text Output mode of ITRANS.

The same IFM file (for *ItxBeng*) is used for this mode as for the T<sub>E</sub>X interface.

## 1.3 Direct Textual Interface: PostScript Output (*ItxBeng* only)

This interface does not offer any word-processing capabilities other than that of checking when a page is complete, and then resetting the current point to the top of the next page. Thus, all spaces, lines, etc from the input text appear in the output too.

The user may also directly invoke PostScript commands to create various versions of the font, as required. Refer to PostScript language manuals for specific help regarding the PostScript font manipulation commands. If you decide to go this route, take a look at the file *ittrans.pro*, it is the prologue that gets sent to the printer. It contains definitions of various commands such as *normalfont*, *slantfont*, *compressedfont*, etc, which may be used to change the font being used. These PostScript functions take a single argument: the font size to use. All this and more information can be obtained from the prologue file, *ittrans.pro*, and PostScript users should take a look at it. For example usage, look through the sample input files provided. Files ending in *.ips* are the direct PostScript input files, *ittrans* (with the -P option) directly produces PostScript output for these files.

The file *itxbeng.pfa* contains the PostScript language program for this bengali font.

## 1.4 Font Developers

### 1.4.1 *bwti*

The *bwti* fonts have been created by Abhijit Das of IISc Bangalore.

### 1.4.2 *ItxBeng*

The *ItxBeng* has been developed by Shrikrishna Patil, who has been developing fonts for over a decade now. He has been extremely generous to all of us users of ITRANS, and has offered us two freeware fonts: one for Gujarati (*ItxGuj*), and one for Bengali (*ItxBeng*). I am thankful to him for this gift! If any one using this ITRANS package finds the need for fonts for Microsoft Windows or Apple Macintosh platforms, feel free to contact Patil at his e-mail address *sapatil@pacbell.net*. His fonts are available at very reasonable costs, around US\$50 to US\$100 depending on the font.

## 1.5 IFM File Developers

Each font requires an *ITRANS Font Metric (IFM)* file to be supplied in the ITRANS document. This Bengali user manual for ITRANS makes use of two IFM files, since it needs to print text in both the *bwti* and *ItxBeng* fonts.

### 1.5.1 *bwti* font

The IFM file for *bwti* is called *bnbeng.ifm*.

I would like to thank Jaijeet Roychowdhury, who created a new IFM file for the bwti fonts and thus add support for them in ITRANS. He also helped fix some problems with the Bengali IFM files.

### 1.5.2 *ItxBeng* font

The IFM file is called *itxbeng.ifm*.

I would like to thank Ansuman Lahiri (*ansu@thon.csb.ki.se*), who helped in creating the IFM file for ItxBeng and in proof-reading the test samples I sent him. There may still be problems with the current Bengali support, but that is because I do not know bengali at all, so if you do find that some conjuncts do not work they should, please send me (Avinash Chopde) e-mail, my address is available elsewhere in this document.

## 2 Example

Input text:

```
ke la_ibe mor kaaJa^r, kahe sandhyaa rabi \\  
shuniYaa jagat.h rahe niruttar chhabi | \\  
maaTir pradiip chhila, se kahila, sbaamii \\  
aamaar JeTuku saadhya kariba taa aami | \\  
--- rabiindranaath Thaakuur
```

In the *ItxBeng* font, the text produces:

কে লইবে মোর কার্য, কহে সন্ধা রবি  
শুনিয়া জগৎ রহে নিরুত্তর ছবি ।  
মাটির প্রদীপ ছিল, সে কহিল, স্বামী  
আমার যেটুকু সাধ্য করিব তা আমি ।  
--- রবীন্দ্রনাথ ঠাকুর

In the *bwti* font, the above text produces:

কে লইবে মোর কার্য, কহে সন্ধা রবি  
শুনিয়া জগৎ রহে নিরুত্তর ছবি —  
মাটির প্রদীপ ছিল, সে কহিল, স্বামী  
আমার যেটুকু সাধ্য করিব তা আমি —  
। রবীন্দ্রনাথ ঠাকুর

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## 3 Author

ITRANS has been developed by Avinash Chopde.

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Home page: <http://www.aczoom.com/>

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<i>bwti</i>	<i>ItxBeng</i>	ITRANS
অ	a	
আ	aa or A	
ই	i	
ঈ	ii or I	
উ	u	
উ	uu or U	
ঞ	RRi or R^i	
এ	e	
ঐ	ai	
ও	o	
ঔ	au	

Vowels

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
০	০	0
১	১	1
২	২	2
৩	৩	3
৪	৪	4
৫	৫	5
৬	৬	6
৭	৭	7
৮	৮	8
৯	৯	9

Numerals

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
গং	গং	ga.n
গাঁ	গাঁ	gaa.N
আঁ	আঁ	aa^r
ম্	ম্	m.h
ঠ	ঠ	t.h
দুঃ	দুঃ	duH
ঙ্গ	ঙ্গ	GYa

Accents/Specials

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
ক	ক	ka
খ	খ	kha
গ	গ	ga
ঘ	ঘ	gha
ঙ	ঙ	~Na or N^a

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
চ	চ	cha
ছ	ছ	chha
জ	জ	ja
ঝ	ঝ	jha
়	়	~na or n^a

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
ট	ট	Ta
ঢ	ঢ	Tha
ড	ড	Da
ঢ	ঢ	Dha
ণ	ণ	Na

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
ত	ত	ta
থ	থ	tha
দ	দ	da
ধ	ধ	dha
ন	ন	na

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
প	প	pa
ফ	ফ	pha
ব	ব	ba
ভ	ভ	bha
ম	ম	ma

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
য	য	Ja or ya
ৱ	ৱ	ra
ল	ল	la
ৰ	ৰ	ba
শ	শ	sha

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
ষ	ষ	Sha
স	স	sa
হ	হ	ha

<i>bwti</i>	<i>ItxBeng</i>	ITRANS
ঞ	ঞ	kSha or xa
ঘ	ঘ	Ya
ঢ	ঢ	.Da
ঢ	ঢ	.Dha

Consonants

**ITRANS: Bengali to English Transliteration Table**

Table 1: Conjunct Consonants

conjunct	ITRANS	bn	itxbeng	ITRANS example	bn example	itxbeng example
ক + ক	kk	କ	କ୍ଳ	dhikkaar	ধିକାର	ଧିକ୍ଳାର
ক + ট	kT	କ୍ଟି	କ୍ଟି	akTopaas	ଷ୍ଟୋପାସ	ଅକ୍ଟୋପାସ
ক + ত	kt	କ୍ତ	କ୍ତ	Daaktaar	ଡାକ୍ତାର	ଡାକ୍ତାର
ক + ব	kb	କ	କ୍ବ	pakba	ପକ	ପକ୍ବ
ক + ম	km	କ୍ମ	କ୍ମ	rukmiNI	ରୁକ୍ମିଣୀ	ରୁକ୍ମିଣୀ
ক + র	kr	କ୍ର	କ୍ର	bakra	ବକ୍ର	ବକ୍ର
ক + ল	kl	କ୍ଲ	କ୍ଲ	klIba	କ୍ଲୀବ	କ୍ଲୀବ
ক + ষ	kSh	କ୍ଷ	କ୍ଷ	rakShaa	ରକ୍ଷା	ରକ୍ଷା
ক + ষ + ণ	k_ShN <sup>1</sup>	କ୍ଷ୍ଣ	କ୍ଷ୍ଣ	tIk_ShNa	ତୀକ୍ଷ୍ଣ	ତୀକ୍ଷ୍ଣ
ক + ষ + ম	k_Shm	କ୍ଷ୍ମ	କ୍ଷ୍ମ	lak_ShmI	ଲକ୍ଷ୍ମୀ	ଲକ୍ଷ୍ମୀ
ক + স	ks	କ୍ଷ	କ୍ସ	riksaa	ରିକ୍ସା	ରିକ୍ସା
গ + ধ	gdh	ଗ୍ର	ଗ୍ଧ	mugdha	ମୁଗ୍ଧ	ମୁଗ୍ଧ
গ + ন	gn	ଗ୍ର	ଗ୍ର	agni	ଗ୍ରି	ଅଗ୍ରି
গ + ব	gb	ଗ୍ର	ଗ୍ବ	digbijay	ଦିଗ୍ବିଜୟ	ଦିଗ୍ବିଜୟ
গ + ম	gm	ଗ୍ର	ଗ୍ର	Jugma	ଯୁଗ୍ମ	ଯୁଗ୍ମ
গ + ল	lm	ଗ୍ର	ଗ୍ର	glaani	ଗ୍ରାନି	ଗ୍ରାନି
ঘ + ন	ghn	ଘ୍ର	ଘ୍ର	bighna	ବିଘ୍ର	ବିଘ୍ର
ঙ + ক	~N + ka	ଙ୍କ	ଙ୍କ	sha~Nkita	ଶଙ୍କିତ	ଶଙ୍କିତ
ঙ + ক + ষ	~Nk_Sh	ଙ୍କ୍ଷ	ଙ୍କ୍ଷ	aakaa~Nk_Shaa	ଆକାଙ୍କ୍ଷା	ଆକାଙ୍କ୍ଷା
ঙ + খ	~N + kh	ଙ୍ଖ	ଙ୍ଖ	sha~Nkha	ଶଙ୍ଖ	ଶଙ୍ଖ
ঙ + গ	~N + g	ଙ୍ଗ	ଙ୍ଗ	byaa~Ng	ବ୍ୟାଙ୍ଗ	ବ୍ୟାଙ୍ଗ
ঙ + ঘ	~N + gh	ଙ୍ଘ	ଙ୍ଘ	sa~Ngha	ସଙ୍ଘ	ସଙ୍ଘ
ঙ + ম	~N + m	ଙ୍ମ	ଙ୍ମ	baa~NmAY	ବାଙ୍ମାୟ	ବାଙ୍ମାୟ
চ + চ	chch	ଚ୍ଚ	ଚ୍ଚ	saachchaa	ସାଚ୍ଚା	ସାଚ୍ଚା
চ + ছ	chchh	ଚ୍ଛ	ଚ୍ଛ	baachchhaa	ବାଚ୍ଛା	ବାଚ୍ଛା
চ + ছ + ব	chchhb	ଚ୍ଛ୍ବ	ଚ୍ଛ୍ବ	uchchhbaas	ଉଚ୍ଛ୍ବସ	ଉଚ୍ଛ୍ବସ
চ + ঞ	ch~n	ଚ୍ଞ	ଚ୍ଞ	Jaach~naa	ଯାଞ୍ଚା	ଯାଞ୍ଚା
জ + জ	jj	ଜ୍ଜ	ଜ୍ଜ	lajja	ଲଜ୍ଜା	ଲଜ୍ଜା
জ + জ + ব	jjb	ଜ୍ଜ୍ବ	ଜ୍ଜ୍ବ	ujjbal	ଉଜ୍ଜ୍ବଲ	ଉଜ୍ଜ୍ବଲ
জ + ঝ	jjh	ଜ୍ଝା	ଜ୍ଝା	kujjhaTikaa	କୁଜ୍ଝାଟିକା	କୁଜ୍ଝାଟିକା
জ + ঞ	GY	ଜ୍ଞ	ଜ୍ଞ	biGYaan	ବିଞ୍ଜାନ	ବିଞ୍ଜାନ
জ + ব	jb	ଜ୍ବ	ଜ୍ବ	jbaalaa	ଜ୍ବାଲା	ଜ୍ବାଲା

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Table 1: Conjunct Consonants (contd)

conjunct	ITRANS	bn	itxbeng	ITRANS example	bn example	itxbeng example
ঞ + চ	~nch	ঞচ	ঞ	ma~ncha	মঞচ	মঞচ
ঞ + ছ	~nchh	ঞছ	ঞছ	laa~nchhnaa	লাঞ্ছনা	লাঞ্ছনা
ঞ + জ	~nj	ঞজ	ঞজ	ga~nja	গঞজ	গঞজ
ঞ + ঝ	~njh	ঞঝ	ঞঝ	jha~njhaa	ঝঞঝা	ঝঞঝা
ট + ট	TT	টু	টু	aTTaalikaa	টালিকা	অট্টালিকা
ট + ব	Tb	টুব	টুব	khaTbaa	খটুব	খটুবা
ড + ড	DD	ডু	ডু	uDDIIn	উড্ডুইন	উড্ডুইন
ণ + ট	NT	ণট	ণট	kaNTakita	কণ্টকিত	কণ্টকিত
ণ + ঠ	NTh	ণঠ	ণঠ	laNThan	লণ্ঠন	লণ্ঠন
ণ + ড	ND	ণড	ণড	gaNDaar	গণ্ডার	গণ্ডার
ণ + ণ	NN	ণণ	ণণ	biShaNNa	বিষণ্ণ	বিষণ্ণ
ণ + ম	Nm	ণম	ণম	hiraNmaY	হিরণ্ময়	হিরণ্ময়
ত + ত	tt	তু	তু	uttaal	উত্তাল	উত্তাল
ত + ত + ব	ttb	তুব	তুব	tattba	তত্ব	তত্ব
ত + থ	tth	তুথ	তুথ	ashbattha	শুথ	অশুত্থ
ত + ন	tn	তুন	তুন	ratna	রুন	রুন
ত + ব	tb	তুব	তুব	tbaraa	ত্বরা	ত্বরা
ত + ম	tm	তুম	তুম	aatmaa	আত্মা	আত্মা
ত + র	tr	তুৰ	তুৰ	sab.rtra	সৰ্বত্র	সৰ্বত্র
দ + গ	dg	দু	দু	udgaataa	উদ্গাতা	উদ্গাতা
দ + ঘ	dgh	দুঘ	দুঘ	udghaaTan	উদ্ঘাটন	উদ্ঘাটন
দ + দ	dd	দুদ	দুদ	baraadda	বুরাদ	বুরাদ
দ + ধ	ddh	দুধ	দুধ	uddhaar	উদ্বার	উদ্বার
দ + ব	db	দুব	দুব	dbIp	দ্বীপ	দ্বীপ
দ + ভ	dbh	দুভ	দুভ	sadbhaab	সন্ত্বাব	সন্ত্বাব
দ + ভ + র	dbhr	দুভু	দুভু	udbhraanta	উদ্ব্রান্ত	উদ্ব্রান্ত
দ + ম	dm	দুম	দুম	padma	পদ্ম	পদ্ম
ধ + ন	dhn	ধুন	ধুন	gRRidhna	গৃধন	গৃধন
ধ + ব	dhb	ধুব	ধুব	dhabajaa	ধুবজা	ধুবজা
ন + ট	nT	ন্টু	ন্টু	aanTaak.rTikaa	ন্টাকটিকা	আন্টাকটিকা
ন + ড	nD	ন্ডু	ন্ডু	byaanD	ব্যান্ড	ব্যান্ড
ন + ত	nt	ন্তু	ন্তু	antim	ন্তিম	অন্তিম

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Table 1: Conjunct Consonants (contd)

conjunct	ITRANS	bn	itxbeng	ITRANS example	bn example	itxbeng example
ন + ত + উ	ntu	ନ୍ତୁ	ନ୍ତୁ	jantu	জନ୍ତୁ	জନ୍ତୁ
ন + ত + ব	ntb	ନ୍ତ୍ବ	ନ୍ତ୍ବ	saantbanaa	সାନ୍ତ୍ବନା	সାନ୍ତ୍ବନା
ন + ত + র	ntr	ନ୍ତ୍ର	ନ୍ତ୍ର	Jantra	ঝନ୍ତ୍ର	ঝନ୍ତ୍ର
ন + থ	nth	ନ୍ଥ	ନ୍ଥ	manthar	মନ୍ଥର	ମନ୍ଥର
ন + দ	nd	ନ୍ଦ	ନ୍ଦ	bandI	ବନ୍ଦୀ	ବନ୍ଦୀ
ন + ধ	ndh	ନ୍ଧ	ନ୍ଧ	gandha	ଗନ୍ଧ	ଗନ୍ଧ
ন + ন	nn	ନ୍ନ	ନ୍ନ	anna	ନ୍ନ	ଅନ୍ନ
ন + ব	nb	ନ୍ବ	ନ୍ବ	samanbaY	সମନ୍ବୟ	সମନ୍ବୟ
ন + ম	nm	ନ୍ମ	ନ୍ମ	janma	ଜନ୍ମ	ଜନ୍ମ
ন + স	ns	ନ୍ସ	ନ୍ସ	sens	ସେନ୍ସ	ସେନ୍ସ
প + ট	pT	ପ୍ଟ	ପ୍ଟ	kipTe	କିପ୍ଟେ	କିପ୍ଟେ
প + ত	pt	ପ୍ତ	ପ୍ତ	saptaaha	সପ୍ତାହ	ସପ୍ତାହ
প + ন	pn	ପ୍ନ	ପ୍ନ	sbapna	ସ୍ବପ୍ନ	ସ୍ବପ୍ନ
প + প	pp	ପ୍ଲ	ପ୍ଲ	dhaappaa	ଧାପ୍ଲା	ଧାପ୍ଲା
প + ল	pl	ପ୍ଲ	ପ୍ଲ	plaabaa	ପ୍ଲାବନ	ପ୍ଲାବନ
প + স	ps	ପ୍ଲ	ପ୍ଲ	abhIpsaa	ଭୀପ୍ଲା	ଅଭୀପ୍ଲା
ফ + ল	phl	ଫ୍ଲ	ଫ୍ଲ	phlipaar	ଫିଲିପାର	ଫିଲିପାର
ব + জ	bj	ବ୍ଜ	ବ୍ଜ	kubja	କୁବ୍ଜ	କୁବ୍ଜ
ব + দ	bd	ବ୍ଦ	ବ୍ଦ	shabda	ଶବ୍ଦ	ଶବ୍ଦ
ব + ধ	bdh	ବ୍ଧ	ବ୍ଧ	aarabdha	ଆରବ୍ଧ	ଆରବ୍ଧ
ব + ব	bb	ବ୍ବ	ବ୍ବ	maatabbar	ମାତବ୍ବର	ମାତବ୍ବର
ব + ল	bl	ବ୍ଲ	ବ୍ଲ	blaTi.n	ବ୍ଲାଟିଂ	ବ୍ଲାଟିଂ
ভ + র	bhr	ଭ୍ର	ଭ୍ର	bhram	ଭର	ଭର
ভ + ল	bhl	ଭ୍ଲ	ଭ୍ଲ	bhlaadimir	ଭାଦିମିର	ଭାଦିମିର
ম + ন	mn	ମ୍ନ	ମ୍ନ	nimna	ନିମ୍ନ	ନିମ୍ନ
ম + প	mp	ମ୍ପ	ମ୍ପ	kampa	କମ୍ପ	କମ୍ପ
ম + ফ	mph	ମ୍ଫ	ମ୍ଫ	lampha	ଲମ୍ଫ	ଲମ୍ଫ
ম + ব	mb	ମ୍ବ	ମ୍ବ	ambal	ମ୍ବଲ	ଅମ୍ବଲ
ম + ত	mbh	ମ୍ବ୍ତ	ମ୍ବ୍ତ	dambha	ଦମ୍ଭ	ଦମ୍ଭ
ম + ত + র	mbhr	ମ୍ବ୍ର	ମ୍ବ୍ର	sambhram	সମ୍ଭର	সମ୍ଭର
ম + ম	mm	ମ୍ମ	ମ୍ମ	aahaammak	ଆହାମ୍ମକ	ଆହାମ୍ମକ
ম + ল	ml	ମ୍ଲ	ମ୍ଲ	mlaan	ମ୍ଲାନ	ମ୍ଲାନ
ল + ক	lk	ଲ୍କ	ଲ୍କ	balkal	ବଳ୍କଳ	ବଳ୍କଳ

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Table 1: Conjunct Consonants (contd)

conjunct	ITRANS	bn	itxbeng	ITRANS example	bn example	itxbeng example
ଲ + ଗ	lg	ଲ୍ଲ	ଲ୍ଲ	balgaa	ବଲ୍ଲା	ବଲ୍ଲା
ଲ + ଗ + ଡୋ	lgu	ଲ୍ଲୁ	ଲ୍ଲୁ	phaalgun	ଫାଲ୍ଟୁନ	ଫାଲ୍ଟୁନ
ଲ + ଟୀ	lT	ଲ୍ଟ	ଲ୍ଟ	palTan	ପଲ୍ଟନ	ପଲ୍ଟନ
ଲ + ଡ	lD	ଲ୍ଡ	ଲ୍ଡ	holDaar	ହେଲ୍ଡାର	ହେଲ୍ଡାର
ଲ + ପ	lp	ଲ୍ପ	ଲ୍ପ	kalpanaa	କଲ୍ପନା	କଲ୍ପନା
ଲ + ବ	lb	ଲ୍ବ	ଲ୍ବ	bilba	ବିଲ୍ବ	ବିଲ୍ବ
ଲ + ମ	lm	ଲ୍ମ	ଲ୍ମ	gulma	ଗୁଲ୍ମ	ଗୁଲ୍ମ
ଲ + ଲ	ll	ଲ୍ଲ	ଲ୍ଲ	praphulla	ପ୍ରଫୁଲ୍ଲ	ପ୍ରଫୁଲ୍ଲ
ଶ + ଚ	shch	ଶ୍ଚ	ଶ୍ଚ	punashcha	ପୁନଶ୍ଚ	ପୁନଶ୍ଚ
ଶ + ଛ	shchh	ଶ୍ଛ	ଶ୍ଛ	shirashchhed	ଶିରଶ୍ଚେଦ	ଶିରଶ୍ଚେଦ
ଶ + ନ	shn	ଶ୍ନ	ଶ୍ନ	prashna	ପ୍ରଶ୍ନ	ପ୍ରଶ୍ନ
ଶ + ମ	shm	ଶ୍ମ	ଶ୍ମ	rashmi	ରଶ୍ମି	ରଶ୍ମି
ଶ + ଲ	shl	ଶ୍ଲ	ଶ୍ଲ	shlaaghaa	ଶ୍ଲାଘା	ଶ୍ଲାଘା
ଶ + ବ	shb	ଶ୍ବ	ଶ୍ବ	shbaapad	ଶ୍ବାପଦ	ଶ୍ବାପଦ
ଷ + କ	Shk	ଷ୍କ	ଷ୍କ	pariShkaar	ପରିଷ୍କାର	ପରିଷ୍କାର
ଷ + କ + ର	Shkr	ଷ୍କ୍ର	ଷ୍କ୍ର	niShkramaN	ନିଷ୍କ୍ରମଣ	ନିଷ୍କ୍ରମଣ
ଷ + ଟୀ	ShT	ଷ୍ଟୀ	ଷ୍ଟୀ	kaShTa	କଷ୍ଟୀ	କଷ୍ଟୀ
ଷ + ଠ	ShTh	ଷ୍ଟ	ଷ୍ଟ	niShThur	ନିଷ୍ଟୁର	ନିଷ୍ଟୁର
ଷ + ଣ	ShN	ଷ୍ଣ	ଷ୍ଣ	uShNa	ଉଷ୍ଣ	ଉଷ୍ଣ
ଷ + ପ	Shp	ଷ୍ପ	ଷ୍ପ	baaShpa	ବାଷ୍ପ	ବାଷ୍ପ
ଷ + ଫ	Shph	ଷ୍ଫ	ଷ୍ଫ	niShphal	ନିଷ୍ଫଳ	ନିଷ୍ଫଳ
ଷ + ମ	Shm	ଷ୍ମ	ଷ୍ମ	bhiiShma	ଭୀଷ୍ମ	ଭୀଷ୍ମ
ସ + କ	sk	ଶ୍କ	ଶ୍କ	puraskRRita	ପୁରଶ୍କ୍ରତ	ପୁରଶ୍କ୍ରତ
ସ + କ + ର	skr	ଶ୍କ୍ର	ଶ୍କ୍ର	skriin	ଶ୍ରୀନି	ଶ୍ରୀନି
ସ + କ + ଲ	skl	ଶ୍କ୍ଳ	ଶ୍କ୍ଳ	skleraa	ଶ୍ଳେରା	ଶ୍ଳେରା
ସ + ଖ	skh	ଶ୍ଖ	ଶ୍ଖ	skhalan	ଶ୍ଖଲନ	ଶ୍ଖଲନ
ସ + ଟୀ	sT	ଶ୍ଟୀ	ଶ୍ଟୀ	sTapaar	ଶ୍ଟପାର	ଶ୍ଟପାର
ସ + ତ	st	ଶ୍ତ	ଶ୍ତ	asta	ଶ୍ତ	ଅଶ୍ତ
ସ + ତ + ଡୋ	stu	ଶ୍ତୁ	ଶ୍ତୁ	bastu	ବଶ୍ତୁ	ବଶ୍ତୁ
ସ + ତ + ର	str	ଶ୍ତ୍ର	ଶ୍ତ୍ର	strain	ଶ୍ରୈନ	ଶ୍ରୈନ
ସ + ଥ	sth	ଶ୍ଥ	ଶ୍ଥ	upasthita	ଉପାଷ୍ଟିତ	ଉପାଷ୍ଟିତ
ସ + ନ	sn	ଶ୍ନ	ଶ୍ନ	snaan	ଶ୍ନାନ	ଶ୍ନାନ

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Table 1: Conjunct Consonants (contd)

conjunct	ITRANS	bn	itxbeng	ITRANS example	bn example	itxbeng example
স + প	sp	স্প	স্প	paraspar	পরস্পর	পৰস্পৰ
স + প + ল	spl	স্প্ল	স্প্ল	split	স্পিট	স্পিট
স + ফ	sph	স্ফ	স্ফ	aasphaalan	আসফালন	আসফালন
স + ব	sb	স্ব	স্ব	sbadesh	স্বদেশ	স্বদেশ
স + ম	sm	স্ম	স্ম	smaraN	স্মরণ	স্মৰণ
স + ল	sl	স্ল	স্ল	slip	স্লিপ	স্লিপ
হ + ণ	hN	হ্	হ্	paraahNa	পৱান্	পৱান্
হ + ন	hn	হ্	হ্	chihnita	চিহ্নিত	চিহ্নিত
হ + ম	hm	হ্	হ্	brahmaa	ব্ৰহ্মা	ব্ৰহ্মা
হ + ব	hb	হ্	হ্	aahbaan	হাবান	আহবান
হ + ল	hl	হ্	হ্	aahlaad	হালাদ	আহলাদ
হ + ঞ	hRRi	হ্	হ্	hRRidaY	হৃদয়	হৃদয়
ড + গ	Rg	ডা	ডগ	khaRga	খড়া	খড়গ
ষ + ণ	ShN	ষও	ষ্ণ	kRRiShNa	ক্ৰষ	ক্ৰষ্ণ
গ + উ	gu	গু	গু	phaaguner	ফাগুনেৱ	ফাগুনেৱ