



# Gurmukhi Script



4.4 Gurmukhi Code Chart

	0A0	0A1	0A2	0A3	0A4	0A5	0A6	0A7
0		ਐ 0A10	ਠ 0A20	ਚ 0A30	ੀ 0A40	ੴ 0A50		ੰ 0A70
1	ੌ 0A01		ਡ 0A21		ੁ 0A41			ੌ 0A71
2	ਂ 0A02		ਢ 0A22	ਲ 0A32	ੂ 0A42			ੲ 0A72
3	ੴ 0A03	ਓ 0A13	ਟ 0A23	ਲ਼ 0A33				ੳ 0A73
4		ਐ 0A14	ਤ 0A24				। 0A64	ਗੁ 0A74
5	ਅ 0A05	ਕ 0A15	ਬ 0A25	ਵ 0A35			॥ 0A65	
6	ਆ 0A06	ਖ 0A16	ਦ 0A26	ਸ਼ 0A36			ੴ 0A66	ੴ 0A76
7	ਇ 0A07	ਗ 0A17	ਧ 0A27		ੇ 0A47		ੴ 0A67	ੴ 0A77
8	ਈ 0A08	ਘ 0A18	ਠ 0A28	ਸ਼ 0A38	ੈ 0A48		ੴ 0A68	ੴ 0A78
9	ਉ 0A09	ਙ 0A19		ਚ 0A39		ਖ਼ 0A59	ੴ 0A69	ੴ 0A79
A	ੳ 0A0A	ਚ 0A1A	ਪ 0A2A	ੴ 0A3A		ਗ਼ 0A5A	ੴ 0A6A	ੴ 0A7A
B		ਛ 0A1B	ਫ 0A2B	ੰ 0A3B	ੌ 0A4B	ਜ਼ 0A5B	ੴ 0A6B	ੴ 0A7B
C		ਜ਼ 0A1C	ਬ 0A2C	ੴ 0A3C	ੌ 0A4C	ੴ 0A5C	ੴ 0A6C	ੴ 0A7C
D		ਝ 0A1D	ਤ 0A2D		ੴ 0A4D		ੴ 0A6D	ੴ 0A7D
E		ਞ 0A1E	ਮ 0A2E	ੴ 0A3E	ੴ 0A4E	ੴ 0A5E	ੴ 0A6E	ੴ 0A7E
F	ੲ 0A0F	ਟ 0A1F	ਯ 0A2F	ੴ 0A3F	ੴ 0A4F		ੴ 0A6F	



#### 4.4.1 Gurmukhi Code Chart Details

Code Character Description  
Point

##### Various signs

0A01	ੰ	GURMUKHI SIGN TIPPI NASALISATION
0A02	ਂ	GURMUKHI SIGN BINDI
0A03	ੌ	GURMUKHI SIGN VISARGA

##### Independent vowels

0A05	ਅ	GURMUKHI LETTER A
0A06	ਆ	GURMUKHI LETTER AA
0A07	ਇ	GURMUKHI LETTER I
0A08	ਈ	GURMUKHI LETTER II
0A09	ਉ	GURMUKHI LETTER U
0A0A	ਊ	GURMUKHI LETTER UU
0A0B		<reserved>
0A0C		<reserved>
0A0D		<reserved>
0A0E		<reserved>
0A0F	ਏ	GURMUKHI LETTER EE
0A10	ਐ	GURMUKHI LETTER AI
0A11		<reserved>
0A12		<reserved>
0A13	ਓ	GURMUKHI LETTER OO
0A14	ਔ	GURMUKHI LETTER AU

##### Consonants

0A15	ਕ	GURMUKHI LETTER KA
0A16	ਖ	GURMUKHI LETTER KHA
0A17	ਗ	GURMUKHI LETTER GA
0A18	ਘ	GURMUKHI LETTER GHA
0A19	ਙ	GURMUKHI LETTER NGA
0A1A	ਚ	GURMUKHI LETTER CA
0A1B	ਛ	GURMUKHI LETTER CHA
0A1C	ਜ	GURMUKHI LETTER JA

0A1D	ਝ	GURMUKHI LETTER JHA
0A1E	ਞ	GURMUKHI LETTER NYA
0A1F	ਟ	GURMUKHI LETTER TTA
0A20	ਠ	GURMUKHI LETTER TTHA
0A21	ਡ	GURMUKHI LETTER DDA
0A22	ਢ	GURMUKHI LETTER DDHA
0A23	ਣ	GURMUKHI LETTER NNA
0A24	ਤ	GURMUKHI LETTER TA
0A25	ਥ	GURMUKHI LETTER THA
0A26	ਦ	GURMUKHI LETTER DA
0A27	ਧ	GURMUKHI LETTER DHA
0A28	ਨ	GURMUKHI LETTER NA
0A29		<reserved>
0A2A	ਪ	GURMUKHI LETTER PA
0A2B	ਫ	GURMUKHI LETTER PHA
0A2C	ਬ	GURMUKHI LETTER BA
0A2D	ਭ	GURMUKHI LETTER BHA
0A2E	ਮ	GURMUKHI LETTER MA
0A2F	ਯ	GURMUKHI LETTER YA
0A30	ਰ	GURMUKHI LETTER RA
0A31		<reserved>
0A32	ਲ	GURMUKHI LETTER LA
0A33	ਲ਼	GURMUKHI LETTER LLA = 0A32 ਲ਼ 0A33 ੜ
0A34		<reserved>
0A35	ਵ	GURMUKHI LETTER VA
0A36	ਸ਼	GURMUKHI LETTER SHA = 0A38 ਸ਼ 0A3C ੜ
0A37		<reserved>



0A38	ਸ	GURMUKHI LETTER SA
0A39	ਹ	GURMUKHI LETTER HA
0A3A	ੌ	GURMUKHI INVISIBLE LETTER
0A3B	ੳ	GURMUKHI ADDAK • DOUBLES FOLLOWING CONSONANT

**Various signs**

0A3C	ੜ	GURMUKHI SIGN NUKTA • for extending the alphabet to new letters
------	---	--

**Dependent vowel signs**

0A3E	ਾ	GURMUKHI VOWEL SIGN AA
0A3F	ਿ	GURMUKHI VOWEL SIGN I • stands to the left of the consonant
0A40	ੀ	GURMUKHI VOWEL SIGN II
0A41	ੁ	GURMUKHI VOWEL SIGN U
0A42	ੂ	GURMUKHI VOWEL SIGN UU
0A43		<reserved>
0A44		<reserved>
0A45		<reserved>
0A46		<reserved>
0A47	ੇ	GURMUKHI VOWEL SIGN EE
0A48	ੈ	GURMUKHI VOWEL SIGN AI
0A49		<reserved>
0A4A		<reserved>
0A4B	ੋ	GURMUKHI VOWEL SIGN OO
0A4C	ੌ	GURMUKHI VOWEL SIGN AU

0A4D	੍ਰ	GURMUKHI SIGN HALANT
0A4E	੍ਰ	GURMUKHI SIGN PARI-RA • CONSONANT MODIFIER
0A4F	੍ਰ	GURMUKHI SIGN PARI-HA • CONSONANT MODIFIER
0A50	ੴ	GURMUKHI EK ONKAR • GOD IS ONE

**Additional consonants**

0A59	ਖ	GURMUKHI LETTER KHHA = 0A16 ਖ 0A3C ੜ
0A5A	ਗ	GURMUKHI LETTER GHHA = 0A17 ਗ 0A3C ੜ
0A5B	ਜ	GURMUKHI LETTER ZA = 0A1C ਜ 0A3C ੜ
0A5C	ੜ	GURMUKHI LETTER RRA
0A5D		<reserved>
0A5E	ਫ	GURMUKHI LETTER FA = 0A2B ਫ 0A3C ੜ
0A64	।	GURMUKHI SIGN PURNA VIRAM
0A65	॥	GURMUKHI SIGN DEERGH VIRAM

**Digits**

0A66	੦	GURMUKHI DIGIT ZERO
0A67	੧	GURMUKHI DIGIT ONE
0A68	੨	GURMUKHI DIGIT TWO
0A69	੩	GURMUKHI DIGIT THREE
0A6A	੪	GURMUKHI DIGIT FOUR
0A6B	੫	GURMUKHI DIGIT FIVE
0A6C	੬	GURMUKHI DIGIT SIX
0A6D	੭	GURMUKHI DIGIT SEVEN
0A6E	੮	GURMUKHI DIGIT EIGHT
0A6F	੯	GURMUKHI DIGIT NINE



### Gurmukhi – specific additions

0A70	ੰ	GURMUKHI TIPPI • nasalization
0A71	ੳ	GURMUKHI ADDAK • doubles following consonant
0A72	ੲ	GURMUKHI IRI • base for vowels
0A73	ੳ	GURMUKHI URA • base for vowels
0A74	ੴ	GURMUKHI KHANDA
0A76	ੲ	GURMUKHI SIGN PARI VA • HALANT (0A4D) ੲ (0A35) ੲ
0A77	ੲ	GURMUKHI SIGN PARI YA • HALANT (0A4D) ੲ (0A2F) ੲ
0A78	ੲ	GURMUKHI SIGN HALF Y-YA • (0A2F) ੲ HALANT (0A4D) ੲ
0A79	ੲ	GURMUKHI SIGN PARI GU • HALANT(0A4D) ੲ (0A17) ੲ
0A7A	ੲ	GURMUKHI SIGN PARI CHA • HALANT(0A4D) ੲ (0A18) ੲ
0A7B	ੲ	GURMUKHI SIGN PARI TA • HALANT(0A4D) ੲ (0A24) ੲ
0A7C	ੲ	GURMUKHI SIGN PARI NA • HALANT(0A4D) ੲ (0A2A) ੲ
0A7D	ੰ	GURUMUKHI VOWEL SIGN BIHARI BINDI
0A7E	ੰ	GURUMUKHI VOWEL SIGN AAN (KANA BINDI)

### 4.4.2 Gurmukhi Script Details

#### A. Explanations for Revised Gurmukhi Code Chart

The name Gurumukhi, literally ‘ from the mouth of the Guru ‘ refers to its use in the Granth Sahib, the sacred literature of the Sikhs. This is a collection of poems mostly in Old Punjabi, but includes pieces in several other languages. The alphabet is also sometimes called ‘the thirty – five ‘, from the fact that the basic repertoire of consonant and consonant – like symbols numbers thirty-five.

Gurumukhi is written from left to right. The characters are normally aligned below the line of writing. The major symbols represents consonants. Vowels other than / a /are indicated by accessory symbols written around the consonant symbols. When a syllable begins with a vowel, a vowel bearer (ੳ ਅ ਏ) - - a consonant– like symbol indicating the absence of a consonant is used.

Punjabi is a tone language but there are no separate symbols for tones and the tones are generally clearly indicated by certain consonant signs. This is the major function of the signs for ‘ voiced aspirates ‘, for “ੲ”, and conjunct consonant including “ੲ”. The use of these letters to indicate tones is often etymologically justified, and indeed tone probably has arisen from older (\*ੲ) and voiced aspirates.

There are fewer uncertainties and irregularities in either the reading or the spelling rules than are usual in languages of South Asia. For example there is only one way to write homorganic nasal clusters (ੲ) in contrast with the three that are available in Hindi (ੲ, ੲ, ੲ).

The result is much less variation in spelling, and less uncertainty as to the correct spelling.

Punjabi is written in the Gurmukhi Script in India. It is written in Perso-Arabic script in Pakistan. Gurmukhi script is the official recognised script of the Punjabi Language in India.

#### Table of Gurumukhi Letters

ੳ	ਅ	ੲ	ਸ	ਹ
ਕ	ਖ	ਗ	ਘ	ਙ
ਚ	ਛ	ਜ	ਝ	ਞ
ਟ	ਠ	ਡ	ਢ	ਣ



उ	ष	द	य	न
प	ढ	ब	भ	म
ज	र	ल	व	ञ
स	क्ष	ग	ज्ञ	ह
ल				

**The Alphabet**

Form	Devanagari Equivalent
क	क
ख	ख
ग	ग
घ	घ
ङ	ङ
च	च
छ	छ
ज	ज
झ	झ
ञ	ञ
ट	ट
ठ	ठ
ड	ड
ढ	ढ
ण	ण
त	त
थ	थ
द	द
ध	ध
न	न
प	प
फ	फ
ब	ब
भ	भ
म	म
य	य
र	र
ल	ल
व	व
श	श
स	स
ह	ह
उ	उ
अ	अ
इ-ए	इ-ए

The basic alphabet is supplemented by the following letters with a dot diacritic. All but the first are used only in unassimilated loan words, mostly from Persian

Form	Devanagari Equivalent
स	श
ज	ज़
ह	फ़
ख	ख़
ग	ग़
ल	ल़

**Consonant Letters**

	Bilabial	Labio Dental	Dental	Alveolar	Retroflex	Palato Alveolar	Palatal	Velar	Glottal
<b>Stops:</b>									
Voiceless unspirated	p(प)	t(ड)	t̪(ट)					k(क)	
Voiceless aspirated	ph(फ़)	th(थ)	ʈ(ठ)					kh(ख)	
Voiced unspirated	b(ब)	d(द)	ɖ(ड)					g(ग)	
Voiced aspirated	bh(भ)	dh(ध)	ɗ(ढ)					gh(घ)	
<b>Affricates:</b>									
Voiceless unspirated							c(च)		
Voiceless aspirated							ch(छ)		
Voiced unspirated							j(ज)		
Voiced aspirated							jh(झ)		
<b>Nasals</b>	m(म)	n(न)	ɳ(ण)	ɲ(ञ)	ɳ̠(ञ)			ŋ(ङ)	
<b>Lateral</b>			l(ल)	ɭ(ल)					
<b>Trill:</b>			r(र)						
<b>Flap (unspirated)</b>					ɾ(ऌ)				
<b>Flap (aspirated)</b>						ɽ(ऍ)			



Fricatives:	f(फ़)	s(स)	ʃ(श)	x(ख़)	h(ह)
Voiceless					
Voiced		z(ज़)		G(ग़)	
Frictionless					
Continuants:	v(व)		y(य)		

All consonants in word-final position have a slight vocalic release when the tone occurs on the preceding syllable. This release is of importance in the tone system.

Stops and nasals occur at five points of articulation : velar, palatal, retroflex, dental and labial. There are four series : voiceless unaspirate, voiceless aspirate, voiced unaspirate, and nasal. All twenty combinations occur and are phonemic.

Velar articulations vary from pre-velar to mid-velar or slightly post-velar. The exact articulation is conditioned by adjacent vowels.

Palatal articulations are frontal and pre-palatal. The tongue tip is normally depressed. Palatal stops are clearly affricated with a sibilant quality in the off-glides.

Retroflex articulations are apical and alveolar or very front palatal. The articulator is always the tip of the tongue, never the blade, and may involve the lower surface. The retroflexion, however, is generally weak.

Dental articulations are generally post-dental and always blade rather than tip. The opposition with the retroflex articulation is as much, at least, in the articulator as it is in the point of articulation.

Labial articulations are bilabial.

There is a clear opposition of aspirate and unaspirate in the voiceless stops. This opposition is maintained in all positions. Voiced stops and nasals are unaspirate only. Aspiration does not occur after voiced consonants within the word, even as a separate phoneme.

Aspirate stops are treated as unit phonemes, though transcribed by digraphs. This treatment simplifies the statement of pattern by eliminating all three-member final clusters. Treatment as unit phonemes also simplifies equating phonemics and orthography. No confusion can result from the transcription because of very severe restrictions of distribution of (च़), which never occurs following any consonant within the word.

All stops are lenis in medial position after centralised vowels unless geminated. Geminated stops occur only after centralised vowels and are fortis. This opposition is not maintained after peripheral vowels and in this position the stops tend to be neither markedly lenis nor markedly fortis.

(फ़) is commonly heard as a fricative [f], particularly between vowels and in word-final position. The extent to which this occurs varies from speaker to speaker and from style to style, being commoner in more rapid speech and less formal diction.

In addition to the stops and nasals, there are three pairs of continuants : retroflex and dental, three unmatched consonants, and two semivowels.

(श) is a voiceless, post-dental, blade sibilant. (स) is a voiceless, alveolar to slightly retroflex tip sibilant. This opposition is fairly strong in all dialects. But in some dialects, the opposition (श) and (ष) is weak.

(ल) is a voiced lateral continuant with post-dental blade articulation. (ळ) is a voiced lateral continuant with apical alveolar or retroflex articulation. This opposition is quite strong in Majhi dialect and minimal pairs are numerous. It is, however, lacking in some dialects.

(च़) is a post-dental trill, generally fairly weakly trilled. (च़) is a retroflex flap, never having more than one constriction (i.e. never trilled). The opposition is strong.

(ह़) is a glottal of the type customarily called "voiced h".

(फ़) and (भ) are unpaired fricatives, one labiodental of bilabial voiceless, the other post-dental. They occur only in loan words from Persian or Arabic.

**Table**

Symbol	Phonetic Value
स	sa as in suit, सूट
ह	ha, as in hat, हैट
क	ka, as in car, कार
ख	kha* i.e. aspirated kho-kho (खे-खे)
ग	ga, as in gate, गेट
घ	ka* i.e. k with low-rising tone.
ङ	na, as in -ing, मीङ



ਚ	cha, as in charm, (ਚਾਰਮ)
ਛ	chha* i.e. aspirated ਚ ch
ਜ	ja, as in jail, ਜੇਲ
ਝ	ca* i.e. c with low-rising tone.
ਣ	na, as in singe, ਵੰਦ
ਟ	ta, cerebral in trunk, ਟਰੰਕ
ਠ	tha i.e. aspirated ਠ
ਡ	da, cerebral in daily, ਡੇਲੀ
ਢ	ta* i.e. ਠ with low-rising tone.
ਣ	na*, cerebral ਨ
ਤ	ta dental, as in Russian or Italian
ਥ	tha*, i.e. aspirated t, as in three, ਥੀ
ਦ	da dental, as in Russian or Italian
ਧ	ta* i.e. t with a low-rising tone.
ਨ	na, as in note, ਨੋਟ
ਪ	pa, as in papa, ਪਾਪਾ
ਫ	pha*, as in phone, (ਫੋਨ)
ਬ	ba, as in baby, ਬੇਬੀ
ਭ	pa* i.e. p with a low-rising tone.
ਮ	ma, as in mama, ਮਾਮਾ
ਯ	ya as in you, ਯੂ
ਰ	ra, as in rate, ਰੇਟ
ਲ	la, as in late, ਲੇਟ
ਵ	va, as in vote, ਵੋਟ
ੜ	ra*, flapped cerebral

**Vowels**

In the production of vowels, air stream coming from the lungs passes through the oral cavity without any obstruction. While producing vowels, different parts of the tongue move to different heights within the oral cavity, the shape of the lips is modified. The movement of the different parts of the tongue like front, central or back and the shape of the lips and the heights to which a specific part of the tongue is raised in the production of sound of different vowels. In the production of vowels, vocal cords may vibrate to produce voiced vowels. The nasal passage remains closed when the non-nasal or oral vowels are produced and it remains open allowing the air stream to pass through the nasal cavity thus producing nasalized vowels.

Besides a broad classification of vowels into nasal and non-nasal categories, the vowel sounds can be classified on the basis of the part of the tongue used in the

articulation, the height of the tongue and the position of the lips, whether they are spread or rounded.

On the basis of the part of the tongue used in the process of articulation, vowels are classified as front vowels, central vowels and back vowels. On the basis of the height of the tongue in the articulation of vowels, the vowels have been classified as high, lower-high, mid, mid-low and low vowels. On the basis of the posture of lips in the production of sound of vowels, vowels have been classified as rounded and unrounded vowels.

A detailed analysis of the Punjabi vowel system shows other instances of structural economy. There are two classes of vowels: peripheral vowels (ɪ, ʌ, ɔ, ɪ̃, ʌ̃, ɔ̃) and centralised vowels (ɪ̃, ə, ʌ̃) sometimes known as long and short. Now, this dichotomy is established on the fact that the centralised vowels never occur finally and the oppositions peripheral (central- ɪ/ʌ, ə/ɪ̃, ʌ̃/ʌ̃) are neutralised. Furthermore, in the pretonal position and before geminates, we have only the centralised vowels. In these positions, a Punjabi speaker has no choice between these and their correlates (ʌ̃, ɪ̃, ʌ̃). The economy of the language required that all centralised vowels have a similar phonological pattern and they did.

**The Alphabet**

Form		Devanagari Equivalent
no sign	ਅ ਕ	no sign
ੜ	ਆ ਕਾ	।
ਿ	ਇ ਕਿ	ि
ੀ	ਈ ਕੀ	ी
ੁ	ਉ ਕੁ	ु
ੂ	ਊ ਕੂ	ू
ੇ	ਏ ਕੇ	े
ੈ	ਐ ਕੈ	ै
ੋ	ਓ ਕੋ	ो
ੌ	ਔ ਕੌ	ौ
ੰ	ਕੰ	—
ਾਂ	ਕਾਂ	ं
ੱ	ਕੱ	conjunct

**Independent Vowel Letters :** ਅ, ਆ, ਇ, ਈ, ਉ, ਊ, ਏ, ਐ, ਓ, ਔ





**Dependent Vowel Signs :** ठ ड ढ ण ङ ऒ ओ औ क ख ङ

**Viram**

Viram = । Halant =  $\dot{\quad}$   
Example : ढ = s + a = sa  
              ढ = s

**Consonant Conjuncts**

Only three types of conjunct consonants are used. In all bases a modified form of the second consonant is subjoined to the unaltered form of the first.

In the first type, ढ a form of ढ is subjoined. The pronunciation of the consonant, as a consonant is not changed in any way, but the conjunct indicates a tonal distinction. For example :

ढ	(rh)
ढ	(nh)
ढ	(lh)
ढ	(mh)

In the second type of conjunct, ढ a form of ढ is subjoined to certain consonants, most commonly stops. These occur only in tatsamas, mostly learned or religious terms. In initial position they are pronounced with /r/ between the consonants. A few educated people, speaking very formally and carefully, occasionally pronounce these as initial clusters. For example :

ढ	(pr)
ढ	(kr)
ढ	(shr)

In the third type of conjunct a form of ढ is subjoined. It is usually found in older literature, particularly when highly Sanskritised. For example :

ढ	(sw)
---	------

Clusters with homorganic nasals are written as sequence of nasalised vowel and consonant.

Geminate clusters are written by the sign ढ /addak/ written over and just before the letter to be doubled.

Other clusters are written by two separate consonant signs without any special indication that they form a

cluster. Whether sequences of consonant symbols without indication of intervening vowels are to be read as clusters or with /r/ can only be determined on the basis of general patterns for whole words.

**Simple Half Forms**

ढ	pra
ढ	mva
ढ	rha

**Ligatures** None

**Combining Mark** hyphen (-)

**Digits**

Numerals are written in the same manner as in Devanagari or Western "Arabic" numeration. The symbols for the ten digits are follows :

1	१	2	२	3	३	4	४
5	५	6	६	7	७	8	८
9	९	0	०				

**Punctuation Symbols :**

॥ ; : | ''

There are only two marks of punctuation in older Gurumukhi. One, ॥, is use to mark the end of major unites, sentences, in prose. The other, |, is used to mark the end of verses in poetry. The two are not used together in the same passage.

In modern printed books, punctuation of the English type is used, except that ॥ is used instead of the period. There is no standardisation of practice other than that provided by the English models.

The sign : is used to mark abbreviations. Abbreviation is not very extensively used. The following are examples :

पुः	for	पुढैसर	Professor
डः	for	डऱक्टर	Doctor

*(Courtesy : Prof. G.S. Lehal  
School of Mathematics and Computer Applications  
Thapar Institute of Engineering & Technology  
Deemed University, Patiala 147 001  
Tel: 0175-393374, 393382  
E-mail : gslehal@mailcity.com)*



## B. Gurmukhi Design Guide

### Introduction

This document provides general information about the Punjabi Language and some conventions of its usage in India.

The information presented in this document is intended to assist in understanding the nature and problems of Punjabi implementation in current and future prospects. It contains the generic description of Punjabi.

### India

The Subcontinent of India lies in South Asia, between Pakistan, China and Nepal. To the north it is bordered by the world's highest mountains chain, where foothill valleys cover the northern most of the country's 26 states. Further South, plateaus, tropical rain forests and sandy deserts are bordered by palm fringed beaches.

Side by side with the country's staggering topographical variations is its cultural diversity, the result of the coexistence of a number of religions as well as local traditions.

India's history goes back to 3,200BC when Hinduism was first founded. Buddhism, Jainism, Sikhism, Judaism, Zorashtrianism, Christianity and Islam all exist within the country today. Modern India is home alike to the tribal with his anachronistic life-style and to the sophisticated urban jetsetter. It is a land where temple elephants exist amicably with the microchip. Its ancient monuments are the backdrops for the world's largest democracy where atomic energy is generated and industrial development has brought the country within the world's top ten nations. Today, fisherman along the country's coastline fashion simple fishing boats in a centuries old tradition while, a few miles away, motor vehicles glide off conveyor belts in state of the art factories.

### Language

#### Names of Languages

India has 18 officially recognized and about 1652 languages as dialects/mother tongues spoken in India. Hindi is the national language. The other officially recognized languages are :

Assamese	Tamil
English	Malayalam
Gujarati	Telugu
Oriya	Urdu
Bengali	Sanskrit
Kashmiri	Sindhi
Punjabi	Konkani
Marathi	Manipuri
Kannada	Nepali

### Description of the Punjabi Language

Punjabi belongs to the Indo-Aryan family and is the official language of the state of Punjab. From the 19th Century, Punjabi showed vigorous development in all branches of literatures. It is written in Gurmukhi script, created by the Sikh Guru, Angad. In vocabulary it is very similar to Western Hindi. All Gurmukhi letters have uniform height and can be written between two parallel horizontal lines, with the only exception of ਏ (the first letter of the alphabet) the top curve of which extends beyond the upper line. From left to right, too, they have almost uniform length, only of ਅ (aira) and ਕ (kaggha) may be slightly longer than the rest. Gurmukhi script has been acknowledged very apt for Punjabi Language. It contains 38 consonants, 3 vowel carriers, 10 vowels and 3 half-characters. According to the traditional script there are 32 consonants and 3 vowel carriers. When these vowel carriers are used with matras their number increases to 10. If we look at the whole script including vowel carriers, consonants, matras, accessory signs, half letters etc., the number of the total Lipanks is 56.

### History of Punjabi Language

It is commonly accepted that 'Gurmukhi' is a member of the Brahmi family. Brahmi is an Aryan script which was developed by the Aryans and adapted to local needs. Punjabi is written in the Gurmukhi script in India. It is written in Perso-Arabic script in Pakistan. Besides Gurmukhi, Punjabi Literature has also been written down in Persian script. Sanskrit is the mother of Punjabi Language. For a long period it has been associated with the Arabic-Persian and English Languages as well. Since a large number of persian words are used in punjabi language so to fulfill the requirement certain



alphabets have been adopted in the Gurmukhi Script with the addition of a bindi. Also recent researches have added (ਲ) for the dialectical requirements viz., (ਸ ਖ ਗ ਜ ਫ ਲ )

### Population using the Punjabi Language

India 2,56,90,000 2.76% of the total population of the country.

### Technical Characteristics

#### Punjabi Alphabet Characteristics

Each Language has its own script suited to its particular needs and there are certain rules governing its writing and usage. These rules pertain to its script, vowel-signs, correct pronunciation, numerals, spellings and its dialectical variations, punctuation marks, phonemes and their nearest equivalents in other languages, standard terminology, forms of verbs, declensions and other grammatical subtleties. The Configuration of the alphabet, vowels and vowels symbols is as given here under :-

ੳ	ਅ	ੲ	ਸ	ਹ	
urha	airha	irhi	sassa	haha	
ਕ	ਖ	ਗ	ਘ	ਙ	
kakka	khakha	gagga	kagga	nanja	
ਚ	ਛ	ਜ	ਝ	ਞ	
chacha	chhachha	jajja	chajja	nanjha	
ਟ	ਠ	ਡ	ਢ	ਣ	
Tainka	Thatha	.Dadda	Tadda	Nanna	
ਤ	ਥ	ਦ	ਧ	ਨ	
tatta	thatha	dadda	tadda	nana	
ਪ	ਫ	ਬ	ਭ	ਮ	
pappa	phapha	babba	pabba	mamma	
ਯ	ਰ	ਲ	ਵ	ੜ	
yaiya	rara	lalla	vava	rharha	
ਸ਼	ਖ਼	ਗ਼	ਜ਼	ਫ਼	ਲ਼
shasha	khakha	gagga	zazza	faffa	lalla

Vowels		Vowel Signs	
ਅ	ੳ	Without Signs	Mukta
ਆ	a	ੲ	(Kanna)
ਇ	I	ੳ	(Sihari)
ਈ	i	ੲ	(Bihari)
ਏ	e	ੳ	(lavan)
ਐ	ਏ	ੲ	(dulavan)

ੳ	U	ੲ	(onkar)
ੲ	u	ੳ	(dulankar)
ੳ	o	ੲ	(hora)
ਐ	ੳ	ੳ	(kanaura)

### Punctuation Marks

The punctuation marks form a vital part of every writing. By analysing a syntactic construction and word formation, punctuation marks delimiting them to the concerned fractions explicate the underlying meaning perfectly. In the ancient Punjabi single full stop bar (।) or double full stop bar (।।) had been in vogue only. However, to the present day Punjabi besides Dandi many other marks are used out of which the mark of Dandi has been retained from old Punjabi while all other marks have been derived from English.

#### 1 Full Stop

There are four types of marks used for full stop in Punjabi i.e. Dandi (।), double Dandi (।।), Sign of interrogation (?), Sign of exclamation (!). They primarily denote full stop.

##### A) Dandi (।)

In place of full stop of English Dandi is used in Punjabi. It is put after the descriptive and imperative sentences.

##### B) Double Dandi (।।)

In the ancient Punjabi the use of double Dandi was customary at the end of the sentences but in toto caelo only single Dandi is used only in the present Punjabi writing system.

##### C) Sign of Interrogation (?)

This system is put at the end of interrogative sentences addressed directly e.g.

ਤੂੰ ਕਿੱਥੇ ਕੰਮ ਕਰਦਾ ਹੈ?

However in the indirect interrogative sentences the Dandi will be put instead of interrogation mark such as-

ਉਸ ਨੇ ਮੈਨੂੰ ਪੁੱਛਿਆ ਕਿ ਮੈਂ ਕਿੱਥੇ ਕੰਮ ਕਰਦਾ ਹਾਂ।



#### D) Sign of Exclamation ( ! )

It is used at the end of the exclamatory words and sentences.

#### Comma ( , )

Amongst the punctuation marks it denotes the smallest stop. It is used in order to distinguish, various isotype words used in a sentence, different pairs of words, clauses, phrases, various words giving the gamut of rank; to distinguish ordinary type of vocative words and to give illustration after (ਜਿਵੇਂ, ਜਿਸ ਤਰ੍ਹਾਂ) and before the sentence given in the inverted commas for instance: -

ਉਹ ਬਹੁਤ ਈਮਾਨਦਾਰ, ਸਿਆਣਾ, ਆਗਿਆਕਾਰ ਅਤੇ ਮਿਹਨਤੀ ਕਰਮਚਾਰੀ ਹੈ।

ਬੁੱਢੇ ਅਤੇ ਬੱਚੇ, ਅਮੀਰ ਤੇ ਗਰੀਬ, ਦੁਕਾਨਦਾਰ ਤੇ ਮਜ਼ਦੂਰ, ਹਰ ਕਿਸਮ ਦੇ ਲੋਕ ਪੰਡਾਲ ਵਿਚ ਹਾਜ਼ਰ ਸਨ।

ਬਾਗ ਵਿੱਚ ਫੁੱਲ ਖਿੜੇ ਹੁੰਦੇ ਸਨ, ਪੰਛੀ ਬੋਲ ਰਹੇ ਸਨ ਅਤੇ ਠੰਢੀ ਹਵਾ ਚਲ ਰਹੀ ਸੀ।

ਕੰਮ ਤੋਂ ਟਲਣਾ ਸਿਆਣਪ ਨਹੀਂ, ਮੁਰਖਤਾ ਹੈ।

ਪ੍ਰਿੰਸੀਪਲ, ਸਰਕਾਰੀ ਮਾਡਲ ਸਕੂਲ, ਮਾਡਲ ਟਾਊਨ।

#### Semi-Colon ( ; )

The pause in this punctuation mark is more than that of comma and half than that of full stop. It is used in the compound sentence to distinguish the clause with commas or in the long sentences in order to distinguish the least connected clauses or it is used before ਜਿਵੇਂ ਆਦਿ (For example.)

ਉਹ ਮਿਲਾਪੜਾ, ਪਰਉਪਕਾਰੀ ਇਨਸਾਨ ਹੈ; ਇਸ ਲਈ ਸਾਰੇ ਉਸ ਦੀ ਇੱਜ਼ਤ ਕਰਦੇ ਹਨ।

ਹੌਲੀ ਗੱਲ ਕਰੋ ; ਕੰਧਾਂ ਦੇ ਵੀ ਕੰਨ ਹੁੰਦੇ ਹਨ।

#### Colon ( : )

The duration of pause is longer in colon than that of semicolon. It is used in a sentence to differentiate the quantitative details or illustration section or it is used in the independent sentences having same drift, for instance-

1. ਸੋਣੀ ਦੀਆਂ ਮੁੱਖ ਮੁੱਖ ਫਸਲਾਂ ਹਨ : ਝੋਨਾ, ਕਪਾਹ, ਮੱਕੀ, ਮੂੰਗਫਲੀ ਤੇ ਦਾਲਾਂ

ਵਿੱਦਿਆ ਬਹੁਤ ਵੱਡਾ ਧਨ ਹੈ : ਵਿਦਿਆਵਾਨ ਦੀ ਹਰ ਥਾਂ ਕਦਰ ਹੁੰਦੀ ਹੈ।

#### Colon dash ( :- )

This sign is used before giving any quotation or the following details or any instance or after giving the heading of the paragraph in the same line.

ਉਮੀਦਵਾਰਾਂ ਲਈ ਨਿਮਨ ਦਰਜ ਯੋਗਤਾਵਾਂ ਜ਼ਰੂਰੀ ਹਨ :-

#### Dash ( - )

It is used to indicate the following :-

At the time of drifting the idea for instance :

ਉਸ ਨੂੰ ਕੰਮ ਨਿਬੇੜ ਦੇਣਾ ਚਾਹੀਦਾ ਸੀ- ਪਰ ਸ਼ਾਇਦ ਉਸ ਦੀ ਮਜ਼ਬੂਰੀ ਹਵੇਗੀ।

To Conjugate the isotype or different things such as :

ਸੰਗੀਤਕਾਰਾਂ, ਕਲਾਕਾਰਾਂ, ਦੁਕਾਨਦਾਰਾਂ-ਹਰ ਕਿਸਮ ਦੇ ਲੋਕਾਂ ਨੂੰ ਉਹ ਮਿਲਿਆ।

To give the name of the author or book after quoting the excerpt; for instance-

ਐ ਪੰਜਾਬ ਕਰਾਂ ਕੀ ਸਿਫਤ ਤੇਰੀ

ਸਾਲਾਂ ਦੇ ਸਭ ਸਮਾਨ ਤੇਰੇ "

ਧਨੀ ਰਾਮ ਚਾੜ੍ਹਕ -

#### Inverted Commas ( " . . ." )

These Commas are used in the beginning and end of an utterance or sentence that is given exactly.

#### Apostrophe ( ' )

Apostrophe is used against that part of the phoneme which is left out at the time of articulation for example: 'ਵਾਜ਼-(ਅਵਾਜ਼) 'ਚ (ਵਿਚ)

#### Bindi ( . )

Like English full stop it is used to put any word in an abbreviated form just as :-

ਐਮ. ਪੀ., ਐਮ. ਐਲ. ਏ., ਪ. ਸ. ਗਿੱਲ

#### Jorni (Hyphen) ( - )

It is used in the copulative compounds e.g.

ਵਿਸ਼ਾ-ਮਾਹਿਰ, ਸ਼ਬਦ-ਅਨੁਕ੍ਰਮਣਿਤਾ, 1993-94



### Oblique line (/)

An oblique line is drawn between the two alternative words such as ਸ਼੍ਰੀ/ਸ਼੍ਰੀਮਤੀ, ਪੁੱਤਰ/ ਪੁੱਤਰੀ

### Brackets or Parentheses ( ), { }, [ ]

The word meaning, other forms, some specific information or the additional part of the syntax is given in the parentheses; as;

100/- ਰੁ. (ਇੱਕ ਸੌ ਰੁਪਏ)

### Ditto or Azan ( “ ” )

It is the sign of repetition of the above said dictum.

ਵੇਖੋ ਸਾਵੇ ਪੱਤਰ ਪੰਨਾ 16

“ “ “ “ “ 36

### Has Pad (Caret) ( ^ )

It denotes the left out or marginal words in a writing or marks a word or letter to be inserted in the line.

ਪ੍ਰਮੁੱਖ ਪੰਜਾਬ ਦੀਆਂ ^ ਰੁੱਤਾਂ ਇਹ ਹਨ

### Danedar Rekha (Granular line) ( . . . . )

It is an indicator of blank to be filled up or that the narrative is continued.

1. ਨਾਂ . . . . .

(\*\*\*\*\*)

It indicates superfluous or redundant words left out of the narrative.

### Heth Lakeer (Underline) ( \_\_\_\_\_ )

It is used to make any important word or sentence especially perceptible or for underlying a heading or to mark the place of insertion.

### Smapti Soochak (Indicative of finale) ( - - - - )

This mark is used at the end of some book, chapter or an essay.

### Other marks

The Computation system in the mathematical books etc. generally employs specific marks instead of giving detailed description. These signs are :-

1. + plus

1. - Minus

2. \* Multiplication

3. ÷ Division

4. √ radial sign (i.e. square root sign)

5. % Percentage

6. = equal to

8. 2<sup>4</sup> means to multiply 2 with two thrice such as 2\*2\*2\*2=16

9. @ at the rate of

10. : ratio proportion

11. (5)<sup>0</sup>

12. Currency denomination Rs. £ \$

ਰੁ, ਪੈਡ, ਡਾਲਰ

13. Certain linguistic conventional signs are employed in the linguistics, lexicons and grammatical books. This sign < is used in order to describe the etymon of a word such as ਸੌ < ਸੌ . ਸਪ . The sign > is used for the evolution of an accidence for instance ਡਰ > ਡਰੁ The sign (√) is used in order to describe the lexical root for example.

ਗਿਲਾਜਤ √ ਗਲਜ

14. Oblique lines / \ In the linguistic books the grammatical links of word-evolution or syntax are described by drawing sketches with the help of these oblique lines.

### Character Set Consideration

#### Usage Frequencies

#### Frequency count of Gurmukhi characters

Knowledge about frequency occurrence of characters is useful in many areas of applications such as in cryptography, keyboard design, character recognition etc. Table 1 presents the frequency occurrence of characters of Gurmukhi words along with their cumulative frequency. These results were obtained from statistical analysis of a Punjabi corpus. Result shows that ਠ (Kanna) is the most common occurring character. It accounts for 10.5% of whole corpus. It is followed by the vowels (ਠ, ਠ, ਠ) Thus the first 4 most frequently occurring characters are vowels and





4. The letter ਅ can never be followed by a member of the set { ਿ ਿ ਿ ਿ ਿ ਿ }.
5. The letter ਏ should always be followed by vowel ਿ or ਿ or preceded by letter ਿ.
6. The members of the set { ਿ ਿ ਿ } cannot be followed by a member of the set { ਿ ਿ }.
7. The half character ਿ should always be preceded by a member of the set { ਨ ਮ ਵ ਰ ਲ ਕ ਜ }.
8. The half character ਿ should always be preceded by a member of the set { ਸ ਦ ਧ }.
9. The half character ਿ should always be preceded by a member of the set { ਤ ਠ ਪ ਗ ਘ ਟ ਬ ਤ ਦ ਧ ਿ ਿ ਿ ਿ ਿ ਿ }.

### Fonts

The total number of glyphs to be supported in Punjabi fonts is smaller than other Indian Languages. This is achieved by using symbol adhak ਿ, which takes care of all half characters. In fact 57 glyphs can be used to draw all the characters used in modern Gurmukhi script.

ੳ	ਅ	ੲ		
		ਸ	ੲ	
ਕ	ਖ	ਗ	ਘ	ਙ
ਚ	ਛ	ਜ	ਝ	ਞ
ਟ	ਠ	ਡ	ਢ	ਣ
ਤ	ਥ	ਦ	ਧ	ਨ
ਪ	ਫ	ਬ	ਭ	ਮ
ਯ	ਰ	ਲ	ਵ	ੜ
ਸ਼	ਜ਼	ਖ਼	ਫ਼	ਗ਼
ੜ	ਿ	ਿ	ਿ	ਿ
ੳ				

For religious text some additional glyphs may be needed.



The two most popular keyboard layouts are Remington and phonetic. The key combination for a typical Remington and phonetic keyboards to represent Gurmukhi character set are represented as follows.

### Remington Keyboard layout

ੳ	ਅ	ੲ	ਸ	ੲ	ਕ	ਖ	ਗ	ਘ	ਙ
T	n	J	;	j	e	y	r	x	C
ਚ	ਛ	ਜ	ਝ	ਞ	ਟ	ਠ	ਡ	ਢ	ਣ
u	S	i	M	R	N	m	v	Y	D
ਤ	ਥ	ਦ	ਧ	ਨ	ਪ	ਫ	ਬ	ਭ	ਮ
s	E	d	X	B	g	c	p	G	w
ਯ	ਰ	ਲ	ਵ	ੜ	ਸ਼	ਖ਼	ਗ਼	ਫ਼	ੜ
:	o	b	t	V	F			}	\
ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ
U	"	'	/	?	Q	q	.	<	,
ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ
┌	{	a	H	L	;	┌	┌	f	┌
ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ
z	Z	k	~						

### A typical phonetic keyboard layout

ੳ	ਅ	ੲ	ਸ	ੲ	ਕ	ਖ	ਗ	ਘ	ਙ
a	A	e	s	h	k	K	g	G	
ਚ	ਛ	ਜ	ਝ	ਞ	ਟ	ਠ	ਡ	ਢ	ਣ
c	C	j	J	\	t	T	f	F	x
ਤ	ਥ	ਦ	ਧ	ਨ	ਪ	ਫ	ਬ	ਭ	ਮ
q	Q	d	D	n	p	P	b	B	m
ਯ	ਰ	ਲ	ਵ	ੜ	ਸ਼	ਖ਼	ਗ਼	ਫ਼	ੜ
X	r	l	v	V	S	^	Z	z	&
ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ
E	O	o	y	Y	H	R	[	?	,
ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ	ੳ
u	U	.	;	w	W	i	I	M	'

### Calendars

#### Month Names

ਜਨਵਰੀ	ਪੋਹ	January
ਫਰਵਰੀ	ਮਾਘ	February
ਮਾਰਚ	ਫੱਗਣ	March
ਅਪ੍ਰੈਲ	ਚੇਤ	April
ਮਈ	ਵਿਸਾਖ	May
ਜੂਨ	ਜੇਠ	June
ਜੁਲਾਈ	ਹਾੜ੍ਹ	July
ਅਗਸਤ	ਸੋਣ	August
ਸਤੰਬਰ	ਭਾਦੋਂ	September



ਅਕਤੂਬਰ	ਅੱਸੂ	October
ਨਵੰਬਰ	ਕੱਤਕ	November
ਦਸੰਬਰ	ਮੱਘਰ	December

### Weekday Names

ਸੋਮਵਾਰ	Monday
ਮੰਗਲਵਾਰ	Tuesday
ਬੁੱਧਵਾਰ	Wednesday
ਵੀਰਵਾਰ	Thursday
ਸ਼ੁੱਕਰਵਾਰ	Friday
ਸ਼ਨੀਚਰਵਾਰ	Saturday
ਐਤਵਾਰ	Sunday

### Time Zone

12 O'clock	ਬਾਰਾਂ ਵਜੇ
12-15 A.M.	ਸਵਾ ਬਾਰਾਂ
12-30 A.M.	ਸਾਢੇ ਬਾਰਾਂ
12-45 A.M.	ਪੈਂਣਾ ਇੱਕ
1 O'clock	ਇੱਕ ਵਜੇ
1-15 A.M.	ਸਵਾ ਇੱਕ
1-30 A.M.	ਡੇਢ
1-45 A.M.	ਪੈਂਣੇ ਦੋ
2 O'clock	ਦੋ ਵਜੇ
2-15 A.M.	ਸਵਾ ਦੋ
2-30 A.M.	ਚਾਈ
2-45 A.M.	ਪੈਂਣੇ ਤਿੰਨ
3 O'clock	ਤਿੰਨ ਵਜੇ
3-15 A.M.	ਸਵਾ ਤਿੰਨ
3-30 A.M.	ਸਾਢੇ ਤਿੰਨ

### Collating Sequence & Sorting

The collating sequence is as under

~	~	.				
ੳ	ਅ	ੲ	ਸ	ਸ਼	ਹ	
ਕ	ਖ	ਖ਼	ਗ	ਗ਼	ਘ	ਙ
ਚ	ਛ	ਜ	ਜ਼	ਝ	ਞ	
ਟ	ਠ	ਡ	ਢ	ਣ		
ਤ	ਥ	ਦ	ਧ	ਨ		
ਪ	ਫ	ਫ਼	ਬ	ਭ	ਮ	
ਯ	ਰ	ਲ	ਲ਼	ਵ	ੜ	
ੴ	ੲ	ੳ	ੴ	ੴ	ੴ	-
=	~	~	~	~	~	

### Character, Word, Line And Sentence Break Rules

#### Character Break Rules

Ignore non-spacing marks and enclosing marks (Since we never put a break before ignore character, this keeps combining accents with the base characters they modify)

**Word Break Rules:** A word is a sequence of letters that may contain internal punctuation as long as it begins and ends with a letter and never contains two punctuation marks in a row.

1. Ignore new spacing marks, enclosing marks, and format characters all of which should not influence the algorithm.
2. Punctuation that can occur in the middle of a word: currently dashes, apostrophes, quotation marks and periods. (mid-word)
3. Punctuation that can occur in the middle of a number : currently apostrophes, quotations marks, periods, commas, and the Arabic Decimal Point. (mid-num)
4. Punctuation that can occur at the beginning of a number : currently the period, the number sign, and all currency symbols except the cents sign (pre-num)
5. Punctuation that can occur at the end of a number : currently the percent, per thousand, Per-ten-thousand, and Arabic percent signs, the cents sign, and the ampersand. (post-num)
6. Line separators
7. Whitespace : all space separators and the tab character

A number is a sequence of digits that may contain internal punctuation, as long as it begins and ends with a digit and never contains two punctuation marks in a row.

8. Break after every character, with the following exceptions : (this will cause punctuation marks that aren't considered part of words or numbers to be treated as words into themselves)
  - a. Keep together any sequence of contiguous words and number (including just one of either), plus an optional trailing.





- b number-suffix character.
- c keep together any sequence of contiguous words and numbers that starts with a number prefix character and a number and may end with a number suffix character.
- d Keep together runs of whitespace (optionally with a single trailing line separator or CRLF sequence)

### Sentence Break Rules

- 1 Ignore non-spacing marks, enclosing marks, and format characters.
- 2 Lower case letters
- 3 Uppercase Latin letters
- 4 Whitespace (Line separators and treated as whitespace)
- 5 Punctuation which may occur at the beginning of a sentence: "Starting Punctuation" and quotation marks.
- 6 Punctuation which may occur at the end of a sentence "ending punctuation" and quotation marks.
- 7 Digits
- 8 Characters that unambiguously signed the end of a sentence.
- 9 Periods, which may signal the end of a sentence.
- 10 Characters that may occur at the beginning of a sentence: basically anything not mentioned above (lowercase letters and digits are specifically excluded)
- 11 Always break sentences after paragraph separators.
- 12 Always break after a kanna, if its followed by whitespace.

### Weights & Measurement (ਨਾਪ ਤੋਲ ਮਿਣਤੀਆਂ)

<b>Units</b>	ਇਕਾਈਆਂ
acre	ਏਕੜ
are	ਏਰ
barrel	ਬੈਰਲ
(petroleum, US)	(ਪੈਟਰੋਲੀਅਮ, ਯੂ. ਐਸ)

(proof spirits, US)	(ਪਰੂਫ, ਸਪਿਰਟ, ਯੂ. ਐਸ)
(beer, US)	(ਬੀਅਰ, ਯੂ. ਐਸ)
bushel	ਬੁਸ਼ੈਲ
cable	ਕੇਬਲ
chain (surveyor's)	ਚੇਨ (ਸਰਵੇਅਰ ਦੀ)
cord (wood)	ਕੋਰਡ (ਲੱਕੜ)
cup	ਕੱਪ
degrees, Celsius	ਡਿਗਰੀ, ਸੈਲਸੀਅਸ
degrees, Fahrenheit	ਡਿਗਰੀ, ਫ਼ਾਰਨਹੀਟ
dram, avdp.	ਡਰਾਮ, ਏ.ਵੀ.ਡੀ.ਪੀ.
dream, troy	ਡਰਾਮ, ਟਰੋਏ
dram, liquid (US)	ਡਰਾਮ, ਦ੍ਰਵ (ਯੂ. ਐਸ)
fathom	ਫੈਥਮ
foot	ਫੁੱਟ
foot^2	ਵਰਗ ਫੁੱਟ
foot^3	ਘਣ ਫੁੱਟ
furlong	ਫਰਲਾਂਗ
gallon, liquid (US)	ਗੈਲਨ, ਦ੍ਰਵ (ਯੂ. ਐਸ)
gill (US)	ਗਿੱਲ (ਯੂ. ਐਸ)
grain	ਗ੍ਰੇਨ
gram	ਗ੍ਰਾਮ
hand (height of horse)	ਹੈਂਡ (ਘੋੜੇ ਦੀ ਉਚਾਈ)
hectare	ਹੈਕਟੇਅਰ
hundredweight, long	ਹੰਡਰਡਵੇਟ, ਲੰਬਾ
hundredweight, short	ਹੰਡਰਡਵੇਟ, ਛੋਟਾ
inch	ਇੰਚ
inch^2	ਵਰਗ ਇੰਚ
inch^3	ਘਣ ਇੰਚ
kilogram	ਕਿਲੋਗ੍ਰਾਮ
kilometer	ਕਿਲੋਮੀਟਰ
kilometer^2	ਵਰਗ ਕਿਲੋਮੀਟਰ
knot (1 nautical mi/hr)	ਨੌਟ (1 ਸਮੁੰਦਰੀ ਮੀਲ/ਘੰਟਾ)
league, nautical	ਲੀਗ, ਸਮੁੰਦਰੀ
league, statute	ਲੀਗ, ਸੰਵਿਧੀ
link (surveyor's)	ਲਿੰਕ (ਸਰਵੇਅਰ ਦੀ)
litre	ਲਿਟਰ
meter	ਮੀਟਰ
meter^2	ਵਰਗ ਮੀਟਰ
meter^3	ਘਣ ਮੀਟਰ
micron	ਮਾਈਕ੍ਰੋਨ
mil	ਮਿਲ



mile, nautical	ਮੀਲ, ਸਮੁੰਦਰੀ
mile^2, nautical	ਵਰਗ ਮੀਲ, ਸਮੁੰਦਰੀ
mile, statute	ਮੀਲ, ਸੰਵਿਧੀ
mile^2, statute	ਵਰਗ ਮੀਲ, ਸੰਵਿਧੀ
minim (US)	ਮੀਨਿਮ (ਯੂ. ਐਸ)
ounce, avdp.	ਔਂਸ, ਏ.ਵੀ.ਡੀ.ਪੀ.
ounce, liquid (US)	ਔਂਸ, ਦ੍ਰਵ (ਯੂ. ਐਸ)
ounce, troy	ਔਂਸ, ਟਰੋਏ
pace	ਪੇਸ
peck	ਪੈਕ
pennyweight	ਪੈਨੀ ਭਾਰ
pint, dry (US)	ਪਿੰਟ, ਖੁਸ਼ਕ (ਯੂ.ਐਸ)
pint, liquid (US)	ਪਿੰਟ, ਦ੍ਰਵ (ਯੂ.ਐਸ)
point (typographical)	ਪੁਆਇੰਟ (ਨਾਪਣ-ਕਲਾ)
pound, avdp	ਪੌਂਡ, ਏ.ਵੀ.ਡੀ.ਪੀ.
pound, troy	ਪੌਂਡ, ਟਰੋਏ
quart, dry (US)	ਕੁਆਰਟ, ਖੁਸ਼ਕ (ਯੂ.ਐਸ)
quart, liquid (US)	ਕੁਆਰਟ, ਦ੍ਰਵ (ਯੂ.ਐਸ)
quintal	ਕਵਿੰਟਲ
rod	ਰੌਡ
scruple	ਸਕਰੂਪਲ
section (US)	ਸੈਕਸ਼ਨ (ਯੂ.ਐਸ)
span	ਸਪੈਨ
stere	ਸਟੀਅਰ
tablespoon	ਟੇਬਲਸਪੂਨ
teaspoon	ਚਾਹ ਚਮਚ
ton, long or deadweight	ਟਨ, ਲੰਬਾ ਜਾਂ ਅਚਲ ਭਾਰ
ton, metric	ਟਨ, ਮੀਟਰਿਕ
ton, register	ਟਨ, ਰਜਿਸਟਰ
ton, short	ਟਨ, ਛੋਟਾ
township (US)	ਟਾਊਨਸ਼ਿਪ (ਯੂ.ਐਸ)
yard	ਗਜ਼
yard^2	ਵਰਗ ਗਜ਼
yard^3	ਘਣ ਗਜ਼

(Courtesy : Prof. G.S. Lehal  
School of Mathematics and Computer Applications  
Thapar Institute of Engineering & Technology  
Deemed University, Patiala 147 001  
Tel: 0175-393374, 393382  
E-mail : gslehal@mailcity.com)

### 4.4.3 Typical Colloquial Sentences in Gurmukhi

#### GREETING

- ▶ Hello  
ਸਤਿ ਸ੍ਰੀ ਅਕਾਲ  
ਸਤ੍ ਸ੍ਰੀ ਅਕਾਲ  
Sat Shri Akaal
- ▶ Good Morning  
ਸੁਭ ਸਵੇਰ  
ਸੁਭ ਸਵੇਰ  
Shubh Saver
- ▶ Good Afternoon  
ਸੁਭ ਦੁਪਹਿਰ  
ਸੁਭ ਦੁਪਹਿਰ  
Shubh Dupehr
- ▶ Good Night  
ਸੁਭ ਰਾਤਰੀ  
ਸੁਭ ਰਾਤਰੀ  
Shubh Ratri
- ▶ Good Bye  
ਗੁਰੂ ਰਾਖਾ  
ਗੁਰੂ ਰਾਖਾ  
Guru Rakha
- ▶ Thanks  
ਧੰਨਵਾਦ  
ਧਨਗਾਦ  
Dhanwaad
- ▶ How are you  
ਤੁਹਾਡਾ ਕੀ ਹਾਲ ਹੈ ?  
ਤੁਹਾਡਾ ਕੀ ਹਾਲ ਹੈ ?  
Tuhada ki haal hai?
- ▶ I am fine, thank you  
ਮੈਂ ਠੀਕ ਹਾਂ, ਧੰਨਵਾਦ  
ਮੈਂ ਠੀਕ ਹਾਂ, ਧਨਗਾਦ  
Main theek haan, dhanwaad
- ▶ Sorry  
ਅਫਸੋਸ / ਮਾਫ਼ ਕਰਨਾ  
ਅਫਸੋਸ / ਮਾਫ਼ ਕਰਨਾ  
Afsos / maaf karna



## WEATHER

- ▶ It is cold  
ਇਹ ਠੰਢਾ ਹੈ  
ਏਹ ਠੰਡਾ ਹੈ  
Eh thanda hai
- ▶ It is cool outside  
ਬਾਹਰ ਸਰਦੀ ਹੈ  
ਬਾਹਰ ਸਰਦੀ ਹੈ  
Bahar sardi hai
- ▶ It is hot  
ਇਹ ਗਰਮ ਹੈ  
ਏਹ ਗਰਮ ਹੈ  
Eh garam hai
- ▶ It is raining  
ਬਰਸਾਤ ਹੋ ਰਹੀ ਹੈ  
ਬਰਸਾਤ ਹੋ ਰਹੀ ਹੈ  
Barsaat ho rahi hai

## GENERAL

- ▶ What Is Your Name?  
ਤੁਹਾਡਾ ਕੀ ਨਾਂ ਹੈ ?  
ਤੁਹਾਡਾ ਕੀ ਨਾਂ ਹੈ ?  
Tohada ki naan hai
- ▶ My Name Is Ranjan  
ਮੇਰਾ ਨਾਂ ਰੰਜਨ ਹੈ।  
ਮੇਰਾ ਨਾਂ ਰੰਜਨ ਹੈ  
Mera naan ranjan hai
- ▶ Where Do You Live?  
ਤੁਸੀਂ ਕਿਥੇ ਰਹਿੰਦੇ ਹੋ ?  
ਤੁਸੀਂ ਕਿਥੇ ਰਹਿੰਦੇ ਹੋ ?  
Tusi kithe rehnde ho?
- ▶ I Live Near Ghantaghar  
ਮੈਂ ਘੰਟਾਘਰ ਦੇ ਨੇੜੇ ਰਹਿੰਦਾ ਹਾਂ  
ਮੈਂ ਘੰਟਾਘਰ ਦੇ ਨੇੜੇ ਰਹਿੰਦਾ ਹਾਂ  
Main ghantaghar de nede rehnda haan
- ▶ How Old Are You?  
ਤੁਹਾਡੀ ਕੀ ਉਮਰ ਹੈ ?  
ਤੁਹਾਡੀ ਕੀ ਉਮਰ ਹੈ ?  
Tuhadi ki umar hai?

- ▶ That Building Is Tall  
ਉਹ ਇਮਾਰਤ ਉੱਚੀ ਹੈ  
ਓਹ ਇਮਾਰਤ ਉੱਚੀ ਹੈ  
Oh imarat Uchi hai
- ▶ She Is Beautiful  
ਉਹ ਖੂਬਸੂਰਤ ਹੈ  
ਓਹ ਖੂਬਸੂਰਤ ਹੈ  
Oh khubsoorat hai
- ▶ I Like Bengali Sweets  
ਮੈਨੂੰ ਬੰਗਾਲੀ ਮਠਿਆਈਆਂ ਪਸੰਦ ਹਨ  
ਮੈਨੂੰ ਬੰਗਾਲੀ ਮਠਿਆਈਆਂ ਪਸੰਦ ਹਨ  
Menu bangali mithayian pasand han
- ▶ I Love Birds  
ਮੈਨੂੰ ਪੰਛੀਆਂ ਨਾਲ ਪਿਆਰ ਹੈ  
ਮੈਨੂੰ ਪੰਛੀਆਂ ਨਾਲ ਪਿਆਰ ਹੈ  
Menu panchyan naal pyar hai
- ▶ Where Is Railway Station?  
ਰੇਲਵੇ ਸਟੇਸ਼ਨ ਕਿੱਥੇ ਹੈ ?  
ਰੇਲਵੇ ਸਟੇਸ਼ਨ ਕਿੱਥੇ ਹੈ ?  
Railway station kithe hai?
- ▶ How Far Is The Bus Terminal From Here?  
ਇਥੋਂ ਬੱਸ ਅੱਡਾ ਕਿੰਨੀ ਦੂਰ ਹੈ ?  
ਇਥੋਂ ਬੱਸ ਅੱਡਾ ਕਿੰਨੀ ਦੂਰ ਹੈ ?  
Ithon bus adda kinni door hai
- ▶ How Long Will It Take To Reach The Airport?  
ਹਵਾਈ ਅੱਡੇ ਤੇ ਪਹੁੰਚਣ ਲਈ ਕਿੰਨਾ ਸਮਾਂ ਲੱਗੇਗਾ ?  
ਹਵਾਈ ਅੱਡੇ ਤੇ ਪਹੁੰਚਣ ਲਈ ਕਿੰਨਾ ਸਮਾਂ ਲੱਗੇਗਾ ?  
Hawai adde te pahoonchan lai kinna sama lagega?
- ▶ Is Mr. Raghunath There?  
ਕੀ ਸ਼੍ਰੀ ਰਘੁਨਾਥ ਉਥੇ ਹਨ ?  
ਕੀ ਸ਼੍ਰੀ ਰਘੁਨਾਥ ਉਥੇ ਹਨ ?  
Ki shri Raghunaath othe han?
- ▶ Please Tell Him To Call Back As Soon As He Is Free  
ਕ੍ਰਿਪਾ ਕਰਕੇ ਉਨ੍ਹਾਂ ਨੂੰ ਕਹਿਣਾ ਕਿ ਫਾਰਗ ਹੁੰਦਿਆਂ ਹੀ  
ਮੈਨੂੰ ਵਾਪਿਸ ਫੋਨ ਕਰਨ  
ਕ੍ਰਿਪਾ ਕਰਕੇ ਉਨ੍ਹਾਂ ਨੂੰ ਕਹਿਣਾ ਕਿ ਫਾਰਗ ਹੁੰਦਿਆਂ ਹੀ  
ਮੈਨੂੰ ਵਾਪਿਸ ਫੋਨ ਕਰਨ  
Kirpa karke ohnan nu kehna ke farag hundyann hi menu wapis phone karan



- ▶ How Much Will It Cost?  
 ਇਸ ਦੀ ਕੀ ਕੀਮਤ ਹੈ ?  
 इस दी की कीमत है ?  
 Is di ki keemat hai?
- ▶ Excuse Me  
 माफ़ करना  
 माफ़ करना  
 Maaf karna
- ▶ From Which Platform can I get the train for Chandigarh?  
 ਮੈਨੂੰ ਚੰਡੀਗੜ੍ਹ ਲਈ ਕਿਹੜੇ ਪਲੇਟਫਾਰਮ ਤੋਂ ਗੱਡੀ ਮਿਲੇਗੀ ?  
 मैंनूँ चणडीगढ़ लई किहड़े पलैटफारम तों गड्डी मिलेगी ?  
 Menu Chandigarh lai kehde platform ton gaddi milegi?
- ▶ Does this train stop at Aligarh?  
 ਕੀ ਇਹ ਗੱਡੀ ਅਲੀਗੜ੍ਹ ਰੁਕਦੀ ਹੈ ?  
 की ऐह गड्डी अलीगढ़ रुकदी है ?  
 Ki eh gaddi Aligarh rukdi hai?
- ▶ How many kids do you have?  
 ਤੁਹਾਡੇ ਕਿੰਨੇ ਬੱਚੇ ਹਨ ?  
 तुहाड़े किन्ने बच्चे हन ?  
 Tuhade kinne bacche han?
- ▶ This gift is wonderful  
 ਇਹ ਤੋਹਫਾ ਵਧੀਆ ਹੈ  
 ऐह तोहफा वदीया है  
 Eh tohfa wadhia hai
- ▶ It is really pretty  
 ਇਹ ਸਚਮੁੱਚ ਖੂਬਸੂਰਤ ਹੈ  
 ऐह सचमुच खूबसूरत है  
 Eh sachmutch khoobsoorat hai
- ▶ Food is delicious  
 ਖਾਣਾ ਸੁਆਦ ਹੈ  
 खाणा सुआद है  
 Khana suwaad hai
- ▶ Congratulations  
 ਵਧਾਈ ਹੋਵੇ  
 वधाई होवे  
 Vadhai howe

- ▶ You look lovely  
 ਤੁਸੀਂ ਪਿਆਰੇ ਲਗਦੇ ਹੋ  
 तुसी प्यारे लगदे हो  
 Tusi piare lagde ho
- ▶ Wish you happy new year  
 ਨਵਾਂ ਸਾਲ ਮੁਬਾਰਕ  
 नवां साल मुबारक  
 Nawan saal mubarak
- ▶ I wish you all the happiness  
 ਮੈਂ ਤੁਹਾਡੀ ਖੁਸ਼ੀ ਦੀ ਕਾਮਨਾ ਕਰਦੀ ਹਾਂ  
 मैं तुहाडी खुषी दी कामना करदी हॉ  
 Main tuhadi khushi di kamna kardi haan
- ▶ Congratulations on your marriage  
 ਤੁਹਾਨੂੰ ਤੁਹਾਡੇ ਵਿਆਹ ਦੀ ਵਧਾਈ ਹੋਵੇ  
 तुहानूँ तुहाड़े विआह दी वधाई होवे  
 Tuhanu tuhade viah di vadhai howe
- ▶ Keep your eyes wide open before marriage and halfshut afterwards  
 ਵਿਆਹ ਤੋਂ ਪਹਿਲਾਂ ਚੌਕੰਨੇ ਰਹੋ ਅਤੇ ਬਾਅਦ ਵਿਚ ਅੱਖਾਂ ਅੱਧੀਆਂ ਮੁੰਦ ਲਵੋ  
 विआह तों पहिलां चौकन्ने रहो अते बाद विच अँषां अँषीਆं मुँद लवो  
 Viah ton pehlan choknne raho atte baad vich akkhan addian moond lavo

*(Courtesy : Prof. G.S. Lehal  
 School of Mathematics and Computer Applications  
 Thapar Institute of Engineering & Technology  
 Deemed University, Patiala 147 001  
 Tel: 0175-393374, 393382  
 E-mail : gslehal@mailcity.com)*