

Heptatonic Scales

Additional documents & scales

1	b2	2	#2 b3	3	4	#4 b5	5	#5 b6	6	#6 b7	7	1
			#2		#3	#4		#5		#6		
1		2		3	4		5		6		7	1
	b2		b3	b4		b5		b6		b7		
		bb3					bb6		bb7			

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For more documents on *Scales*, click here :
[Docs, Charts & Diagrams \[Google Drive\]](#)

Intervals

R	m2	M2	A2	M3	A3	A4	P5	A5	M6	A6	M7	R
		d3	m3	d4	P4	d5	d6	m6	d7	m7		

1	b2	2	#2	3	#3	#4	5	#5	6	#6	7	1
		bb3	b3	b4	4	b5	bb6	b6	bb7	b7		

			#2		#3	#4		#5		#6		
1		2		3	4		5		6		7	1
	b2		b3	b4		b5		b6		b7		
		bb3					bb6		bb7			
	b9	9	#9		11	#11		b13	13			

Complementary Intervals												
	b2		2		b3		3		4		#4	
	7		b7		6		b6		5		b5	

Major Keys : Intervals

Major Keys	C	C# Db	E	D# Eb	E	F	F# Gb	G	G# Ab	A	A# Bb	B
C	1	b2	2	#2	3	4	#4	5	#5	6	b7	7
G	4	#4	5	#5	6	b7	7	1	b2	2	#2	3
D	b7	7	1	b2	2	#2	3	4	#4	5	#5	6
A	#2	3	4	#4	5	#5	6	b7	7	1	b2	2
E	#5	6	b7	7	1	b2	2	#2	3	4	#4	5
B	b2	2	#2	3	4	#4	5	#5	6	b7	7	1
F#	#4	5	#5	6	b7	7	1	b2	2	#2	3	4
Gb	b5	5	#5	6	b7	7	1	b2	2	#2	3	4
Db	7	1	b2	2	#2	3	4	#4	5	#5	6	b7
Ab	3	4	#4	5	#5	6	b7	7	1	b2	2	#2
Eb	6	b7	7	1	b2	2	#2	3	4	#4	5	#5
Bb	2	#2	3	4	#4	5	#5	6	b7	7	1	b2
F	5	#5	6	b7	7	1	b2	2	#2	3	4	#4
C	1	b2	2	#2	3	4	#4	5	#5	6	b7	7

Minor Keys : Intervals

Minor Keys	A	A# Bb	B	C	C# Db	E	D# Eb	E	F	F# Gb	G	G# Ab
A	1	b2	2	b3	b4	4	b5	5	b6	6	b7	7
E	4	b5	5	b6	6	b7	7	1	b2	2	b3	b4
B	b7	7	1	b2	2	b3	b4	4	b5	5	b6	6
F#	b3	b4	4	b5	5	b6	6	b7	7	1	b2	2
C#	b6	6	b7	7	1	b2	2	b3	b4	4	b5	5
G#	b2	2	b3	b4	4	b5	5	b6	6	b7	7	1
D#	#4	5	b6	6	b7	7	1	b2	2	b3	b4	b5
Eb	b5	5	b6	6	b7	7	1	b2	2	b3	b4	b5
Bb	7	1	b2	2	b3	b4	4	b5	5	b6	6	b7
F	b3	b4	4	b5	5	b6	6	b7	7	1	b2	2
C	6	b7	7	1	b2	2	b3	b4	4	b5	5	b6
G	2	b3	b4	4	b5	5	b6	6	b7	7	1	
D	5	b6	6	b7	7	1	b2	2	b3	b4	b5	5
A	1	b2	2	b3	b4	4	b5	5	b6	6	b7	7

Circle of Fifths / Forths



Major Keys

Major Keys	1	2	3	4	5	6	7	Minor Keys	Sharps & Flats
C	C	D	E	F	G	A	B	A	-
G	G	A	B	C	D	E	F#	E	#
D	D	E	F#	G	A	B	C#	B	##
A	A	B	C#	D	E	F#	G#	F#	###
E	E	F#	G#	A	B	C#	D#	C#	####
B	B	C#	D#	E	F#	G#	A#	G#	#####
F#	F#	G#	A#	B	C#	D#	E#	D#	#####
Gb	Gb	Ab	Bb	Cb	Db	Eb	F	Eb	bbbbb
Db	Db	Eb	F	Gb	Ab	Bb	C	Bb	bbbbb
Ab	Ab	Bb	C	Db	Eb	F	G#	F	bbbb
Eb	Eb	F	G	Ab	Bb	C	D	C	bbb
Bb	Bb	C	D	Eb	F	G	A	G	bb
F	F	G	A	Bb	C	D	E	D	b
C	C	D	E	F	G	A	B	A	-

Minor Keys

Minor Keys	1	2	b3	4	5	b6	b7	Major Keys	Sharps & Flats
A	A	B	C	D	E	F	G	C	-
E	E	F#	G	A	B	C	D	G	#
B	B	C#	D	E	F#	G	A	D	##
F#	F#	G#	A	B	C#	D	E	A	###
C#	C#	D#	E	F#	G#	A	B	E	####
G#	G#	A#	B	C#	D#	E	F#	B	#####
D#	D#	E#	F#	G#	A#	B	C#	F#	#####
Eb	Eb	F	Gb	Ab	Bb	Cb	Db	Gb	bbbbb
Bb	Bb	C	Db	Eb	F	Gb	Ab	Db	bbbbb
F	F	G	Ab	Bb	C	Db	Eb	Ab	bbbb
C	C	D	Eb	F	G	Ab	Bb	Eb	bbb
G	G	A	Bb	C	D	Eb	F	Bb	bb
D	D	E	F	G	A	Bb	C	F	b
A	A	B	C	D	E	F	G	C	-

Circle of Fifths / Forths



Major Keys : Degrees / Intervals

Major Keys	I 1	♭II ♭2	II 2	♯II ♯2	III 3	IV 4	♯IV ♯4	♭V ♭5	V 5	♯V ♯5	♭VI ♭6	VI 6	♭VII ♭7	VII 7
C	C	D♭	D	D♯	E	F	F♯	G♭	G	G♯	A♭	A	B♭	B
G	G	A♭	A	A♯	B	C	C♯	D♭	D	D♯	E♭	E	F	F♯
D	D	E♭	E	E♯	F♯	G	G♯	A♭	A	A♯	B♭	B	C	C♯
A	A	B♭	B	B♯	C♯	D	D♯	E♭	E	E♯	F	F♯	G	G♯
E	E	F	F♯	F♯♯	G♯	A	A♯	B♭	B	B♯	C	C♯	D	D♯
B	B	C	C♯	C♯♯	D♯	E	E♯	F♭	F♯	F♯♯	G	G♯	A	A♯
F♯	F♯	G	G♯	G♯♯	A♯	B	B♯	C♭	C♯	C♯♯	D	D♯	E	E♯
G♭	G♭	A♭♭	A♭	A	B♭	C♭	C	D♭♭	D♭	D	E♭♭	E♭	F♭	F
D♭	D♭	E♭♭	E♭	E	F	G♭	G	A♭♭	A♭	A	B♭♭	B♭	C♭	C
A♭	A♭	B♭♭	B♭	B	C	D♭	D	E♭♭	E♭	E	F♭	F	G♭	G♯
E♭	E♭	F♭	F	F♯	G	A♭	A	B♭♭	B♭	B	C♭	C	D♭	D
B♭	B♭	C♭	C	C♯	D	E♭	E	F♭	F	F♯	G♭	G	A♭	A
F	F	G♭	G	G♯	A	B♭	B	C♭	C	C♯	D♭	D	E♭	E
C	C	D♭	D	D♯	E	F	F♯	G♭	G	G♯	A♭	A	B♭	B

Minor Keys : Degrees / Intervals

Minor Keys	I 1	♭II ♭2	II 2	♭III ♭3	♭IV ♭4	IV 4	♯IV ♯4	♭V ♭5	V 5	♯V ♯5	♭VI ♭6	VI 6	♭VII ♭7	VII 7
A	A	B♭	B	C	D♭	D	D♯	E♭	E	E♯	F	F♯	G	G♯
E	E	F	F♯	G	A♭	A	A♯	B♭	B	B♯	C	C♯	D	D♯
B	B	C	C♯	D	E♭	E	E♯	F♭	F♯	F♯♯	G	G♯	A	A♯
F♯	F♯	G	G♯	A	B♭	B	B♯	C♭	C♯	C♯♯	D	D♯	E	E♯
C♯	C♯	D	D♯	E	F♭	F♯	F♯♯	G♭	G♯	G♯♯	A	A♯	B	B♯
G♯	G♯	A	A♯	B	C♭	C♯	C♯♯	D♭	D♯	D♯♯	E	E♯	F♯	F♯♯
D♯	D♯	E	E♯	F♯	G♭	G♯	G♯♯	A♭	A♯	A♯♯	B	B♯	C♯	C♯♯
E♭	E♭	F♭	F	G♭	A♭♭	A♭	A	B♭♭	B♭	B	C♭	C	D♭	D
B♭	B♭	C♭	C	D♭	E♭♭	E♭	E	F♭	F	F♯	G♭	G	A♭	A
F	F	G♭	G	A♭	B♭♭	B♭	B	C♭	C	C♯	D♭	D	E♭	E
C	C	D♭	D	E♭	F♭	F	F♯	G♭	G	G♯	A♭	A	B♭	B
G	G	A♭	A	B♭	C♭	C	C♯	D♭	D	D♯	E♭	E	F	F♯
D	D	E♭	E	F	G♭	G	G♯	A♭	A	A♯	B♭	B	C	C♯
A	A	B♭	B	C	D♭	D	D♯	E♭	E	E♯	F	F♯	G	G♯

Circle of Forths / Fifths



Tonal chord progressions (Circle of Fifths)

Major keys	Minor keys	VII II	III V	VI I	II IV	V bVII	I bIII	IV bVI	Sharps & Flats
C Maj	A Min	B	E	A	D	G	C	F	-
G Maj	E Min	F#	B	E	A	D	G	C	#
D Maj	B Min	C#	F#	B	E	A	D	G	##
A Maj	F# Min	G#	C#	F#	B	E	A	D	###
E Maj	C# Min	D#	G#	C#	F#	B	E	A	####
B Maj	G# Min	A#	D#	G#	C#	F#	B	E	#####
F# Maj	D# Min	E#	A#	D#	G#	C#	F#	B	#####
Gb Maj	Eb Min	F	Bb	Eb	Ab	Db	Gb	Cb	bbbbb
Db Maj	Bb Min	C	F	Bb	Eb	Ab	Db	Gb	bbbbb
Ab Maj	F Min	G	C	F	Bb	Eb	Y	Db	bbbb
Eb Maj	C Min	D	G	C	F	Bb	Y	Ab	bbb
Bb Maj	G Min	A	D	G	C	F	Y	Eb	bb
F Maj	D Min	E	A	D	G	C	F	Bb	b
C Maj	A Min	B	E	A	D	G	C	F	-

Modal chord progressions (Circle of Fifths)

Melodic major (Diatonic major scale)							
Degrees	VII	III	VI	II	V	I	IV
Chords	m7b5	m7	m7	m7	7	M7	M7
Harmonic major							
Degrees	-	-	-	II	V	I	IV
Chords	-	-	-	m7b5	7	M7	mM7
Melodic minor							
Degrees	-	-	VI	II	V	I	IV
Chords	-	-	m7b5	m7	7	mM7	7
Harmonic minor							
Degrees	-	-	-	II	V	I	IV
Chords	-	-	-	m7b5	7	mM7	m7
Melodic major b2							
Degrees	-	-	-	-	V	I	IV
Chords	-	-	-	-	7b5	M7	M7
Harmonic major b2 (Byzantine Mode)							
Degrees	-	-	-	-	V	I	IV
Chords	-	-	-	-	7b5	M7	mM7
Melodic minor b2 (Neapolitan major mode)							
Degrees	-	-	-	-	V	I	IV
Chords	-	-	-	-	7b5	mM7	7
Harmonic minor b2 (Neapolitan minor mode)							
Degrees	-	-	-	-	V	I	IV
Chords	-	-	-	-	7b5	mM7	m7

Pentatonic scales

25 Pentatonic scales / 125 modes - Classification (1)

Division into various groups

1. Basic Modes

8 scales (40 modes)

Scales											2 groups	4 groups				
A1	Major M7	1		2		3			5				7	1	Major	M7
B1	Major m7	1		2		3			5			b7		1		m7
C1	Major M6	1		2		3			5		6			1		M6
D1	Major m6	1		2		3			5	b6				1		m6
E1	Minor M7	1		2	b3				5				7	1	Minor	M7
F1	Minor m7	1		2	b3				5			b7		1		m7
G1	Minor M6	1		2	b3				5		6			1		M6
H1	Minor m6	1		2	b3				5	b6				1		m6

2. Altered b2 Modes

6 scales (30 modes)

Scales											2 groups	4 groups				
B2	Major m7 b2	1	b2			3			5			b7		1	Major	m7
C2	Major M6 b2	1	b2			3			5		6			1		M6
D2	Major m6 b2	1	b2			3			5	b6				1		m6
F2	Minor m7 b2	1	b2			b3			5			b7		1	Minor	m7
G2	Minor M6 b2	1	b2			b3			5		6			1		M6
H2	Minor m6 b2	1	b2			b3			5	b6				1		m6

3. Altered b5 Modes

2 scales (10 modes)

Scales											2 groups	4 groups				
B3	Major m7 b5	1		2		3		b5				b7		1	Major	m7
F3	Minor m7 b5	1		2	b3			b5				b7		1	Minor	m7

4. Altered b2 b5 Modes

6 scales (30 modes)

Scales											2 groups	4 groups				
B4	Major m7 b2 b5	1	b2			3		b5				b7		1	Major	m7
C4	Major M6 b2 b5	1	b2			3		b5			6			1		M6
D4	Major m6 b2 b5	1	b2			3		b5		b6				1		m6
F4	Minor m7 b2 b5	1	b2			b3		b5				b7		1	Minor	m7
G4	Minor M6 b2 b5	1	b2			b3		b5			6			1		M6
H4	Minor m6 b2 b5	1	b2			b3		b5		b6				1		m6

5. Additional Modes

3 scales (15 modes)

Scales											2 groups	4 groups				
A5	Major m6 M7	1				3			5	b6			7	1	Major	M7
B5	Major m6 m7	1				3			5	b6		b7		1		m7
F5	Minor m6 M7	1				b3			5	b6			7	1	Minor	M7

Pentatonic scales

25 Pentatonic scales / 125 modes - Classification (2)

Combination of Modes

Modes		
Major Modes Minor Modes	M7 Modes m7 Modes M6 Modes m6 Modes	Basic Modes Altered $\flat 2$ Modes Altered $\flat 5$ Modes Altered $\flat 2 \flat 5$ Modes Additional Modes

Ces 25 échelles pentatoniques génèrent 125 modes pentatoniques (25 x 5) ne comportant pas plus de 2 demi-tons consécutifs ni d'écart de plus de 4 demi-tons entre deux degrés. Le mode du 1er degré donne son nom à l'échelle.

Common notes

Basic Modes	2 5	
Altered $\flat 2$ Modes	$\flat 2$ 5	
Altered $\flat 5$ Modes	2 $\flat 5$	
Altered $\flat 2 \flat 5$ Modes	$\flat 2$ $\flat 5$	
Major Modes	3	
Minor Modes	$\flat 3$	
M7 Modes	7	
m7 Modes	$\flat 7$	
M6 Modes	6	
m6 Modes	$\flat 6$	
Additional Modes	5 $\flat 6$	No : $\flat 2$ 2

Pentatonic scales

15 Pentatonic scales / 27 modes (Chart 1)

A1. Major M7	Degree	Scale												
Major M7	I	1		2		3			5				7	1
-	III	1			b3				5	b6		b7		1
-	V	1				3	4		5		6			1

B1. Major m7	Degree	Scale												
Major m7	I	1		2		3			5			b7		1
-	V	1			b3		4		5		6			1

C1. Major M6	Degree	Scale												
Major M6 / Gong (China) / Ryō (Japan)	I	1		2		3			5		6			1
Shang (China) / In asc. (Japan)	II	1		2			4		5			b7		1
Jue (China)	III	1			b3		4		#5			b7		1
Zi (China) / Ritsu (Japan) / Bâc (Vietnam)	V	1		2			4		5		6			1
Yu (China) / Min-Yo (Japan) / Nam (Vietnam)	VI	1			b3		4		5			b7		1

D1. Major m6	Degree	Scale												
Major m6	I	1		2		3			5	b6				1

E1. Minor M7	Degree	Scale												
Minor M7	I	1		2	b3				5				7	1

F1. Minor m7	Degree	Scale												
Minor m7	I	1		2	b3				5			b7		1
-	V	1			b3		4		5	b6				1

G1. Minor M6	Degree	Scale												
Minor M6 / Kumoï (Japan)	I	1		2	b3				5		6			1
In Sen (Japan)	II	1	b2				4		5			b7		1

H1. Mineur m6	Degree	Scale												
Minor m6 / Hirajoshi (Japan)	I	1		2	b3				5	b6				1
Iwato (Japan)	II	1	b2				4	b5				b7		1
In desc. (Japan)	V	1	b2				4		5	b6				1

Pentatonic scales

15 Pentatonic scales / 27 modes (Chart 2)

B2. Major m7 \flat 2	Degree	Scale											
Major m7 \flat 2	I	1	\flat 2			3			5			\flat 7	1

C2. Major M6 \flat 2	Degree	Scale											
Major M6 \flat 2	I	1	\flat 2			3			5		6		1

D2. Major m6 \flat 2	Degree	Scale											
Major m6 \flat 2	I	1	\flat 2			3			5	\flat 6			1

F2. Minor m7 \flat 2	Degré	Scale											
Minor m7 \flat 2 / Pelog	I	1	\flat 2		\flat 3				5			\flat 7	1

G2. Minor M6 \flat 2	Degré	Scale											
Minor M6 \flat 2 / Balinese scale	I	1	\flat 2		\flat 3				5		6		1

H2. Minor m6 \flat 2	Degré	Scale											
Minor m6 \flat 2	I	1	\flat 2		\flat 3				5	\flat 6			1
Ryu-kyu (Japan)	\flat VI	1				3	4		5			7	1

F4. Minor m7 \flat 2 \flat 5	Degré	Scale											
Hirajoshi [Burrows] (Japan)	\flat V	1				3		\sharp 4	5		6		1

Pentatonic scales

15 Pentatonic scales / 27 modes (Structure)

1	b2	2	#2 b3	3	4	#4 b5	5	#5 b6	6	b7	7	1	Mode	Name
1	b2		b3				5	b6				1	H2 / I	Minor m6 b2
1	b2		b3				5		6			1	G2 / I	Minor M6 b2 - Balinese scale
1	b2		b3				5			b7		1	F2 / I	Minor m7 b2 - Pelog
1	b2			3			5	b6				1	D2 / I	Major m6 b2
1	b2			3			5		6			1	C2 / I	Major M6 b2
1	b2			3			5			b7		1	B2 / I	Major m7 b2
1	b2				4	b5				b7		1	H1 / II	Iwato (Japan)
1	b2				4		5	b6				1	H1 / V	In desc. (Japan)
1	b2				4		5			b7		1	G1 / II	In Sen (Japan)
1		2	b3				5	b6				1	H1 / I	Minor m6 / Hirajoshi (Japan)
1		2	b3				5		6			1	G1 / I	Minor M6 / Kumoi (Japan)
1		2	b3				5			b7		1	F1 / I	Minor m7
1		2	b3				5				7	1	E1 / I	Minor M7
1		2		3			5	b6				1	D1 / I	Major m6
1		2		3			5		6			1	C1 / I	Major M6 / Gong (China) / Ryō (Japan)
1		2		3			5			b7		1	B1 / I	Major m7
1		2		3			5				7	1	A1 / I	Major M7
1		2			4		5		6			1	C1 / V	Zi (China) / Ritsu (Japan) / Bắc (Vietnam)
1		2			4		5			b7		1	C1 / II	Shang (China) / In asc. (Japan)
1			b3		4		5	b6				1	F1 / V	-
1			b3		4		5		6			1	B1 / V	-
1			b3		4		5			b7		1	C1 / VI	Yu (China) / Min-Yo (Japan) / Nam (Vietnam)
1			b3		4			#5		b7		1	C1 / III	Jue (China)
1			b3				5	b6		b7		1	A1 / III	-
1				3	4		5		6			1	A1 / V	-
1				3	4		5				7	1	H2 / bVI	Ryu-kyu (Japan)
1				3		#4	5		6			1	F4 / bV	Hirajoshi [Burrows] (Japan)

Indian modes - Ragas

10 Thaats - North India

Name	Alt. Degrees	Equivalence	Structure / Tetrachords												
Bilaval	-	A1/I Ionian	1		2		3	4		5		6		7	1
Khammaja	1	A1/V Mixolydian	1		2		3	4		5		6	b7		1
Kalyana	1	A1/IV Lydian	1		2		3		#4	5		6		7	1
Bhairava	2	B2/I Harm. Maj. b2	1	b2			3	4		5	b6			7	1
Marva	2	A3/IV Lydian b2	1	b2			3		#4	5		6		7	1
Kafi	2	A1/II Dorian	1		2	b3		4		5		6	b7		1
Puravi	3	A4/IV Lydian b2 b6	1	b2			3		#4	5	b6			7	1
Asavari	3	A1/VI Aeolian	1		2	b3		4		5	b6		b7		1
Bhairavi	4	A1/III Phrygian	1	b2		b3		4		5	b6		b7		1
Todi	4	B4/IV Phrygian #4 b7	1	b2		b3			#4	5	b6			7	1

72 Melakarta - South India

Tetrachords

Groups	No.	Chakra	Melakarta	1st Tetrachord					2nd Tetrachord						
Purva Melakarta (Nos. 1-36)	1	Indu Chakra	1-6	1	b2	3°		4							
	2	Netra Chakra	7-12	1	b2		b3		4						
	3	Agni Chakra	13-18	1	b2			3	4						
	4	Veda Chakra	15-24	1		2	b3		4						
	5	Bana Chakra	25-30	1		2		3	4						
	6	Ritu Chakra	31-36	1			#2	3	4						
Uttara Melakarta (Nos. 37-72)	7	Rishi Chakra	37-42	1	b2	bb3				#4					
	8	Vasu Chakra	43-48	1	b2		b3			#4					
	9	Brahma Chakra	49-54	1	b2			3		#4					
	10	Disi Chakra	44-60	1		2	b3			#4					
	11	Rudra Chakra	61-66	1		2		3		#4					
	12	Aditya Chakra	67-72	1			#2	3		#4					

5	b6	bb7			1
5	b6		b7		1
5	b6			7	1
5		6	b7		1
5		6		7	1
5			#6	7	1

11 Melakarta parmi les plus utilisés

8 - 15 - 16 - 20 - 22 - 28 - 29 - 36 - 45 - 53 - 65

Références (sauf, bien sûr, pour les équivalences) :

Dictionnaire du musicien - M. Honegger (Larousse) / Dictionnaire encyclopédique de la musique - D. Arnold (R. Laffont)

Indian modes - Ragas

1. Purva Melakarta (Nos. 1-36)

1. Indu Chakra		Equivalence	Structure / Tetrachords												
1	Kanakangi	A4/III Phrygian $\flat\flat 3 \flat\flat 7$	1	$\flat 2$	$\flat\flat 3$			4		5	$\flat 6$	$\flat\flat 7$			1
2	Ratnangi	A3/III Phrygian $\flat\flat 3$	1	$\flat 2$	$\flat\flat 3$			4		5	$\flat 6$		$\flat 7$		1
3	Ganamurti	(4 consecutive semitones)	1	$\flat 2$	$\flat\flat 3$			4		5	$\flat 6$			7	1
4	Vanaspati	E1/II Mixolydian $\flat 2 \flat\flat 3$	1	$\flat 2$	$\flat\flat 3$			4		5		6	$\flat 7$		1
5	Manavati	(4 consecutive semitones)	1	$\flat 2$	$\flat\flat 3$			4		5		6		7	1
6	Tanarupi	(5 consecutive semitones)	1	$\flat 2$	$\flat\flat 3$			4		5			$\#6$	7	1
2. Netra Chakra		Equivalence	Structure / Tetrachords												
7	Senavati	A2/III Phrygian $\flat 7$	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$	$\flat\flat 7$			1
8	Hanumatodi	A1/III Phrygian	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$		$\flat 7$		1
9	Dhenuka	D2/I Harmonic minor $\flat 2$	1	$\flat 2$		$\flat 3$		4		5	$\flat 6$			7	1
10	Natakapriya	C1/II Dorian $\flat 2$	1	$\flat 2$		$\flat 3$		4		5		6	$\flat 7$		1
11	Kokilapriya	C2/I Melodic minor $\flat 2$	1	$\flat 2$		$\flat 3$		4		5		6		7	1
12	Rupavati	(4 consecutive semitones)	1	$\flat 2$		$\flat 3$		4		5			$\#6$	7	1
3. Agni Chakra		Equivalence	Structure / Tetrachords												
13	Gayakapriya	F1/V Phrygian $\flat 3 \flat\flat 7$	1	$\flat 2$			3	4		5	$\flat 6$	$\flat\flat 7$			1
14	Vakulabharanam	D1/V Phrygian $\flat 3$	1	$\flat 2$			3	4		5	$\flat 6$		$\flat 7$		1
15	Mayamalavagaula	B2/I Harmonic major $\flat 2$	1	$\flat 2$			3	4		5	$\flat 6$			7	1
16	Chakravakam	B1/V Mixolydian $\flat 2$	1	$\flat 2$			3	4		5		6	$\flat 7$		1
17	Suryakantam	A2/I Melodic major $\flat 2$	1	$\flat 2$			3	4		5		6		7	1
18	Hatakambari	(4 consecutive semitones)	1	$\flat 2$			3	4		5			$\#6$	7	1
4. Veda Chakra		Equivalence	Structure / Tetrachords												
19	Jhankaradhwani	A3/VI Aeolian $\flat\flat 7$	1		2	$\flat 3$		4		5	$\flat 6$	$\flat\flat 7$			1
20	Natabhairavi	A1/VI Aeolian	1		2	$\flat 3$		4		5	$\flat 6$		$\flat 7$		1
21	Keeravani	D1/I Harmonic minor	1		2	$\flat 3$		4		5	$\flat 6$			7	1
22	Kharaharapriya	A1/II Dorian	1		2	$\flat 3$		4		5		6	$\flat 7$		1
23	Gowrimanohari	C1/I Melodic minor	1		2	$\flat 3$		4		5		6		7	1
24	Varunapriya	F4/II Dorian $\#6 \flat 7$	1		2	$\flat 3$		4		5			$\#6$	7	1
5. Bana Chakra		Equivalence	Structure / Tetrachords												
25	Mararanjani	E1/V Mixolydian $\flat 6 \flat\flat 7$	1		2		3	4		5	$\flat 6$	$\flat\flat 7$			1
26	Charukesi	C1/V Mixolydian $\flat 6$	1		2		3	4		5	$\flat 6$		$\flat 7$		1
27	Sarasangi	B1/I Harmonic major	1		2		3	4		5	$\flat 6$			7	1
28	Harikambhoji	A1/V Mixolydian	1		2		3	4		5		6	$\flat 7$		1
29	Dheerashankarabharanam	A1/I Ionian	1		2		3	4		5		6		7	1
30	Naganandini	D4/II Ionian $\#6$	1		2		3	4		5			$\#6$	7	1
6. Ritu Chakra		Equivalence	Structure / Tetrachords												
31	Yagapriya	O/V -	1			$\#2$	3	4		5	$\flat 6$	$\flat\flat 7$			1
32	Ragavardhani	F4/VI Mixolydian $\#2 \flat 6$	1			$\#2$	3	4		5	$\flat 6$		$\flat 7$		1
33	Gangeyabhushani	F2/VI Ionian $\#2 \flat 6$	1			$\#2$	3	4		5	$\flat 6$			7	1
34	Vagadheeswari	D4/VI Mixolydian $\#2$	1			$\#2$	3	4		5		6	$\flat 7$		1
35	Soolini	D2/VI Ionian $\#2$	1			$\#2$	3	4		5		6		7	1
36	Chalanata	B4/II Ionian $\#2 \#6$	1			$\#2$	3	4		5			$\#6$	7	1

Indian modes - Ragas

2. Uttara Melakarta (Nos. 37-72)

7. Rishi Chakra		Equivalence	Structure / Tetrachords												
37	Salagam	(4 semitones gap)	1	b2	bb3				#4	5	b6	bb7			1
38	Jalarnavam	(4 semitones gap)	1	b2	bb3				#4	5	b6		b7		1
39	Jhalavarali	(4 semitones gap)	1	b2	bb3				#4	5	b6			7	1
40	Navaneetam	(4 semitones gap)	1	b2	bb3				#4	5		6	b7		1
41	Pavani	(4 semitones gap)	1	b2	bb3				#4	5		6		7	1
42	Raghupriya	(4 semitones gap)	1	b2	bb3				#4	5			#6	7	1
8. Vasu Chakra		Equivalence	Structure / Tetrachords												
43	Gavambodhi	(4 consecutive semitones)	1	b2		b3			#4	5	b6	bb7			1
44	Bhavapriya	D4/IV Phrygian #4	1	b2		b3			#4	5	b6		b7		1
45	Subhantuvrali	B4/IV Phrygian #4 b7	1	b2		b3			#4	5	b6			7	1
46	Shadvidhamargini	D3/IV Dorian b2 #4	1	b2		b3			#4	5		6	b7		1
47	Suvarangi	B3/IV Lydian b2 b3	1	b2		b3			#4	5		6		7	1
48	Divyamani	(4 consecutive semitones)	1	b2		b3			#4	5			#6	7	1
9. Brahma Chakra		Equivalence	Structure / Tetrachords												
49	Dhavalambari	(4 consecutive semitones)	1	b2			3		#4	5	b6	bb7			1
50	Namanarayani	C4/IV Phrygian b3 #4	1	b2			3		#4	5	b6		b7		1
51	Kamavardhini	A4/IV Lydian b2 b6	1	b2			3		#4	5	b6			7	1
52	Ramapriya	C3/IV Mixolydian b2 #4	1	b2			3		#4	5		6	b7		1
53	Gamanasrama	A3/IV Lydian b2	1	b2			3		#4	5		6		7	1
54	Viswambari	(4 consecutive semitones)	1	b2			3		#4	5			#6	7	1
10. Disi Chakra		Equivalence	Structure / Tetrachords												
55	Syamalangi	(4 consecutive semitones)	1		2	b3			#4	5	b6	bb7			1
56	Shanmukhapriya	D2/IV Aeolian #4	1		2	b3			#4	5	b6		b7		1
57	Simhendramadhyamam	B2/IV Lydian b3 b6	1		2	b3			#4	5	b6			7	1
58	Hemavati	D1/IV Dorian #4	1		2	b3			#4	5		6	b7		1
59	Dharmavati	B1/IV Lydian b3	1		2	b3			#4	5		6		7	1
60	Neetimati	F2/bII Lydian b3 #6	1		2	b3			#4	5			#6	7	1
11. Rudra Chakra		Equivalence	Structure / Tetrachords												
61	Kantamani	(4 consecutive semitones)	1		2		3		#4	5	b6	bb7			1
62	Rishabhapriya	C2/IV Lydian b6 b7	1		2		3		#4	5	b6		b7		1
63	Latangi	A2/IV Lydian b6	1		2		3		#4	5	b6			7	1
64	Vachaspati	C1/IV Lydian b7	1		2		3		#4	5		6	b7		1
65	Mechakalyani	A1/IV Lydian	1		2		3		#4	5		6		7	1
66	Chitrambari	D2/bII Lydian #6	1		2		3		#4	5			#6	7	1
12. Aditya Chakra		Equivalence	Structure / Tetrachords												
67	Sucharitra	(4 consecutive semitones)	1			#2	3		#4	5	b6	bb7			1
68	Jyotishwaroopini	F3/bVI -	1			#2	3		#4	5	b6		b7		1
69	Dhatuvardhini	F1/bVI Lydian #2 b6	1			#2	3		#4	5	b6			7	1
70	Nasikabhooshani	D3/bVI Mixolydian #2 #4	1			#2	3		#4	5		6	b7		1
71	Kosalam	D1/bVI Lydian #2	1			#2	3		#4	5		6		7	1
72	Rasikapriya	B2/bII Lydian #2 #6	1			#2	3		#4	5			#6	7	1

Symmetric scales

16 scales / 38 modes (1)

2 Degrees

1 mode

Name	Degrees	Scale													
SM-2	All	1	-	-	-	-	-	-	#4	-	-	-	-	-	1

3 Degrees

1 mode

Name	Degrees	Scale												
SM-3	All	1	-	-	-	3	-	-	-	#5	-	-	-	1

4 Degrees - No. 1

2 modes

Name	Degrees	Scale												
SM-4.1a	I - #IV	1	b2	-	-	-	-	#4	5	-	-	-	-	1
SM-4.1b	bII - V	1	-	-	-	-	4	b5	-	-	-	-	7	1

4 Degrees - No. 2

2 modes

Name	Degrees	Scale												
SM-4.2a	I - #IV	1	-	2	-	-	-	#4	-	#5	-	-	-	1
SM-4.2b	II - #V	1	-	-	-	3	-	#4	-	-	-	b7	-	1

4 Degrees - No. 3

1 mode

Name	Degrees	Scale												
SM-4.3	All	1	-	-	b3	-	-	b5	-	-	b7	-	-	1

6 Degrees - No. 1 (Whole-tone)

1 mode

Name	Degrees	Scale												
SM-6.1 - Whole-tone scale	All	1	-	2	-	3	-	#4	-	#5	-	b7	-	1

6 Degrees - No. 2 (2 consecutive semitones / Serie 1)

3 modes

Name	Degrees	Scale												
SM-6.2a	I - #IV	1	b2	-	b3	-	-	#4	5	-	6	-	-	1
SM-6.2b	IIb - V	1	-	2	-	-	4	b5	-	b6	-	-	7	1
SM-6.2c	IIIb - VI	1	-	-	#2	3	-	b5	-	-	6	b7	-	1

6 Degrees - No. 3 (2 consecutive semitones / Serie 2)

3 modes

Name	Degrees	Scale												
SM-6.3a	I - #IV	1	b2	-	-	3	-	#4	5	-	-	b7	-	1
SM-6.3b	bII - V	1	-	-	b3	-	4	b5	-	-	6	-	7	1
SM-6.3c	III - bVII	1	-	2	b3	-	-	#4	-	#5	6	-	-	1

6 Degrees - No. 4 (2 consecutive semitones / Serie 3)

2 modes

Name	Degrees	Scale												
SM-6.4a - Augmented scale	I - II - bVII	1	-	-	#2	3	-	-	5	b6	-	-	7	1
SM-6.4b - Half Augmented scale	#II - V - VII	1	b2	-	-	3	4	-	-	#5	6	-	-	1

Symmetric scales

16 scales / 38 modes (2)

6 Degrees - No. 5 (3 consecutive semitones / 4 semitones gap)

3 modes

Name	Degrés	Scale												
SM-6.5a - Two-semitone tritone scale	I - #IV	1	b2	2	-	-	-	#4	5	b6	-	-	-	1
SM-6.5b	bII - V	1	b2	-	-	-	4	b5	5	-	-	-	7	1
SM-6.5c	II - VIb	1	-	-	-	3	4	b5	-	-	-	b7	7	1

8 Degrees - No. 1 (2 consecutive semitones)

2 modes

Name	Degrees	Scale												
SM-8.1a - Whole-Half Diminished	I - bV / bIII - VI	1	-	2	b3	-	4	b5	-	b6	bb7	-	7	1
SM-8.1b - Half-Whole Diminished	II - bVI / IV-VII	1	b2	-	b3	3	-	#4	5	-	6	7m	-	1

8 Degrees - No. 2 (3 consecutive semitones)

4 modes

Name	Degrees	Scale												
SM-8.2a	I - #IV	1	b2	2	-	3	-	#4	5	b6	-	b7	-	1
SM-8.2b	bII - V	1	b2	-	b3	-	4	b5	5	-	6	-	7	1
SM-8.2c	II - VIb	1	-	2	-	3	4	b5	-	b6	-	b7	7	1
SM-8.2d	III - VIIb	1	-	2	b3	3	-	#4	-	#5	6	b7	-	1

8 Degrees - No. 3 (4 consecutive semitones)

4 modes

Name	Degrees	Scale												
SM-8.3a	I - #IV	1	b2	2	b3	-	-	#4	5	b6	bb7	-	-	1
SM-8.3b	IIb - V	1	b2	2	-	-	4	b5	5	b6	-	-	7	1
SM-8.3c	II - bVI	1	b2	-	-	3	4	b5	5	-	-	b7	7	1
SM-8.3d	IIIb - VI	1	-	-	b3	3	4	b5	-	-	6	b7	7	1

9 Degrees (3 consecutive semitones)

3 modes

Name	Degrees	Scale												
SM-9a	I - III - #V	1	b2	2	-	3	4	b5	-	#5	6	b7	-	1
SM-9b	bII - IV - VI	1	b2	-	b3	3	4	-	5	#5	6	-	7	1
SM-9c	II - bV - bVII	1	-	2	b3	3	-	#4	5	b6	-	b7	7	1

10 Degrees (5 consecutive semitones)

5 modes

Name	Degrees	Scale												
SM-10a	I - #IV	1	b2	2	b3	3	-	#4	5	#5	6	b7	-	1
SM-10b	bII - V	1	b2	2	b3	-	4	#4	5	#5	6	-	7	1
SM-10c	II - #V	1	b2	2	-	3	4	#4	5	b6	-	b7	7	1
SM-10d	IIIb - VI	1	b2	-	b3	3	4	#4	5	-	6	b7	7	1
SM-10e	III - VIIb	1	-	2	b3	3	4	#4	-	#5	6	b7	7	1

12 Degrees

1 mode

Name	Degrees	Scale												
SM-12 - Chromatic scale	All	1	b2	2	b3	3	4	b5	5	b6	6	b7	7	1