



# Swaranjali Music School

## स्वरांजली संगीत शाला

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## Vishaarad Pratham Theory

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### Theory: Written Exam Paper # 2: Chapter 4: Classification of Indian Instruments

#### 1. Types of instruments:

From ancient times, several types of musical instruments were used in Bharat (India). In Ajanta, Ellora, Elephanta caves have sculptures of various instruments. Raamaayan, Mahaabhaarat as well as Ved, Upanishads have descriptions of musical instruments. Lord Shanakar's favorite instrument is 'Damaroo', Goddess Saraswati plays the 'Veena', Naaradmuni likes 'Taanpuraa'. At war time, Shankha, Dundubhee, Ranabheri were used. For simplifying the studies, Indian musical instruments are divided into four main sections. In a book 'Sangeet Ratnaakar', author 'Sharngadev' wrote:

वाद्यतंत्री ततं वाद्यं सुपिरंसुषिरं मतम् ।  
चर्मावनद्धवदनमवनद्धं तु वाद्यते ।  
घनो मूर्तिः सा ऽ भिघाताद्वाद्यते, यत्र तद्धनम् ।

“ Vaadyatantri tatam vaadyam supiramsushiram matam |  
Charmaavanaddhavadanamavanaddham tu vaadyate |  
Ghano murtih saa aa bhi ghaataadvaadyate, yatra taddhanam |” - Sangeet Ratnaakar

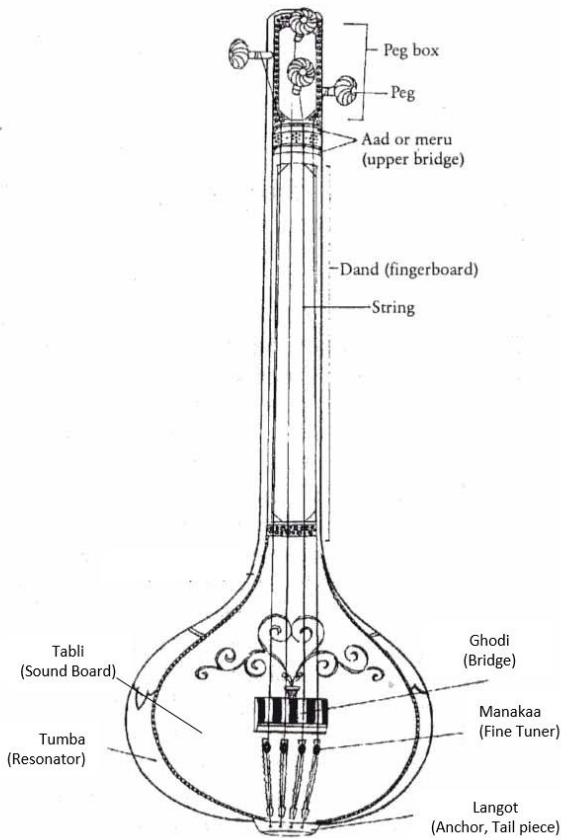
Four main types of musical instruments are:

1. Tata – Vitata,
2. Sushira,
3. Ghana
4. Avanaddha (Aanaddha or Charmavaad)

## 1. Tata – Vitata Vaadya:

Instruments with strings (Taant) are called 'Tantu vaadya' (Tata vaadya or string instruments) . Examples: Tamburaa (Taanpuraa), Sitaar, Saarangee, Sarod, Santoor, Guitar, Violin, Veena etc.

### Taanpuraa



Word 'Tat' comes from a verb 'Tan' which means 'stretch'. When a wire made from steel, brass, Copper is stretched between two supports like pegs, it gives out a musical naad when you pluck it. These two supports are connected to a hollow staff of wood to enhance the musical naad. This metal string should have room to vibrate freely, so it must not touch anything like the wooden staff, otherwise it will not produce the musical sound. Hence, there is a tall 'Ghodi' (Bridge) fitted between the two pegs under the wire. The strings go on top of Ghodi (Bridge) and then they are attached to the pegs and stretched. Ghodi touches the staff and holds strings free to vibrate. Some instruments also have a hollow pumpkin fitted to the wooden staff to further enhance the musical sound.

Example of 'Tata' instrument (Vaadya)

### Taanpuraa

On left side is a sketch of taanpuraa. It has four strings stretched between the pegs and anchor (tailpiece). They pass on top of the two bridges to hold them suspended in air to vibrate freely. The round part at bottom is 'Tumba' to enhance the sound. Four strings are plucked with fingers and it only makes a droning sound to assist a singer to stay in tune.

Place where strings meet Ghodi are kept clean and a fine string is placed between the string and Ghodi. It is called 'Javaari'. Adjusting Javaaree gives a nice ring to Taanpuraa sounds.

There are two types of instruments with strings. **Tata and Vitata.**

- A. Vaadya or instruments that are played by stroking or striking the string by a finger or hammer are called '**Tata Vaadya**'.  
Examples: Taanpuraa, Sitaar, Guitar, Veena, Sarod, Santoor

## 'Tata' Vaadya



1. **Veenaa:** Veenaa is one of the oldest instruments in India and it has undergone many forms. Goddess Saraswati is always depicted with a Veenaa. In an ancient book 'Sangeet Ratnaakar', there is a description of an instrument called 'Mattakokilaa'. Current form of Veenaa originated from 'Mattakokilaa'. Veenaa is popular in southern part of India.
2. **Sitaar:** Pandit Ravishankar made Sitaar popular world over. It has seven strings. Strings are plucked with nails or Mizaraab (metallic pic). On the wooden shaft, there are 14 – 15 brass strips (Frets). They are fastened to the wooden shaft firmly to make sure they don't move. When a performer presses down on the string at a place between two brass strips, it shortens or lengthens the length of a string to a fixed length. This produces a desired swar every time and the string is plucked at the same time to sound the swar. Sometimes two Tumbas are used.  
Apart from Ravishankar, other famous sitar players are: Vilayat khaan, Imdaad Khaan, Inaayat Khaan, Nikhil Banerjee etc.
3. **Sarod:** Sarod is a more serious sounding instrument than Sitar. At the end of 19<sup>th</sup> century Haafij ali khaan was the most famous radiant Sarod player. His grandson Amjad Ali khaan is also well known in 20<sup>th</sup> century. Zareen Daaruvaalaa, Ali Akbar khaan are other Sarod players that are famous.  
Sarod is popular in Bangal. It is also called Shaaradi Veenaa or Saraabat. Playing style is similar to Sitar. Jugalbandi (simultaneous competitive playing of two instruments) between Sitaar and Sarod (Pandit Ravi Shankar and Ali Akbar Khaan resp.) was very well received all over the world.

B. The string instruments that are played with a bow are called '**Vitata vaadya**'. Examples: Violin, Saarangee, Dilrubaa, Israaj, Raavanhattha et

## 'Vitata' Vaadya



### Saarangi:

Saarangi does not have frets like Sitaar. Player uses a bow with left hand and moves skin under his nails in his right hand fingers up and down on the strings. This gives excellent opportunity to play meend and play sounds very similar to human voice. However, in the beginning the skin below fingernails becomes raw and even bleeds. Then player develops calluses on the skin and playing becomes smooth.

Saarangi was primarily used for accompaniment of a singer. It has a sound that is close to a human voice and hence Saaramgi accompaniment is considered best. Shrutis from raag Darbaaree, Todi, Malhaar, Bhairav and two madhyam from raag Lalit are all played very well on Saarangee.

Pandit Raamnaaraayan, Ustaad Sultaan Khaan are famous Saarangee players.

Saarangi is a rather difficult instrument to play and hence it is becoming less popular.

Dilrubaa and Israaj are also instruments that are played with a bow. The both have frets like Sitaar and from left hand fingers are placed on frets and with left hand bow is rubbed or scraped on the string.

**Violin:** This is the most popular instrument that is played with a bow. This western instrument first came to India about 125 years ago. South Indian or Karnatak music adopted it for accompaniment of a singer. Now Violin has become an instrument that can replace Saarangee for accompaniment of a singer in North Indian Classical music too. Many south Indian artists are accomplished at playing Violin. Examples: Raja Maanikam Pillai, Papa Vyankatraam Ayyar from last generation and M. S. Gopaal Krishnan from this generation are well known. From North Indian Classical Music, Pandit Gajaananrao Joshi and V. G. Jog from last generation and Pandit D. K. Daataar and Dr. N. Raajam from current artists are famous.

Violin has two parts. Belly and staff. Belly is made of soft plywood, about 1.5 inches high and hollow. It is about 1.25 feet long, 6-7 inches wide and 1.5 inches high as stated above. There are fissures carved on a belly. They increase a volume and pleasantness of sound. It has four strings and they are stretched over Ghodi and attached to pegs. First string is in mandra saptak, second and third are in Madhya saptak and last is in taar saptak. Bow is about 1.25 feet long and has horse hair stretched and attached to a thin wooden twig. It has a screw on top that can increase or decrease tension on the hair. These days nylon strings are also used on the bow.

**2. Sushir Vaadya:** In an musical instrument, when a sound is created by blowing air, inserting air or creating air pressure, those instruments are called 'Sushir vaadya'. Examples: Harmonium, Shahanaai, Clarinet, Baansuree (Flute), Bugle, Shankha (Conch shell) etc. There are two types of 'Sushir vaadya'.

- a. Instruments that produce a musical sound by reeds (strip) – Harmonium, Shahanaai etc.
- b. Creating sound by holes – Baansuri (flute), Clarinet, Shankha, Bugle etc.



**Harmonium:** Harmonium creates musical sound when air passes through metal reeds. Player pumps bellows with one hand and pushes keys with the other hand that opens the reed attached to that key, creating a unique swar for each key.

This is a very popular instrument for accompaniment and for solo performance. More artists learn Harmonium than Saarang. Even though it is a western instrument, North Indian Classical Music has gladly included it in performances for accompanying singers.

Harmonium parts include: Bellows, Reedboard, Key board, Swar strips, stoppers. Cabinet is made from Cedar wood or Rosewood. Front has the stoppers fitted to it. They help with air flow. Reedboard is inside the cabinet and key board is fitted on top. Swar strips are between the reed board and key board.

Harmonium is tuned in natural scale or tempered scale. It is portable and does not need to be tuned during the performance. Because of this ease of use, it is a very popular instrument even though it is not possible to play meend on it and it can be a tad off tune as compared to other instruments like Saarang and Violin.

**Shahanaai:** This is a popular instrument that is always played during auspicious occasions like weddings. But through efforts from artists like Ustaaad Bismilla Khan, it now has a respectable place in concerts. Shahanaai has a reed on its mouth that the player makes himself with palm leaves. Main part of Shahanaai is a tube made from Copper, Brass or Zinc. Usually gold smiths make it. Short length of the tube makes a Shahanaai with higher octave swar and long tube makes one with lower octave swar.

Apart from Ustaaad Bismilla Khan, Pandit Anantlaal, Gaayakwaad, Deolankar are famous Shahanaai artists.



**Baansuree (Flute, Muralee):** This is an ancient instrument. Old statues of Lord Krishna always show Baansuree in his hands. Ancient book 'Sangeet Ratnaakar' describes a proper method to play baansuree.

Baansuree is generally made from Bamboo. Sometimes it is also made from Steel, Chandan wood, Silver. However, Baansuree used in classical music is made from hollow Bamboo. It has one hole for blowing air from mouth and 7 – 8 holes for playing different swar. According to the length of Baansuree, there are total 14 types of baansurees. It plays about 2.5 saptak.

Pandit Pannaalaal Ghosh gave it a very prestigious place in classical music. Other artists are Pandit Hariprasaad Chaurasiyaa, Keshav Ginde, Devendra Murdeshwar, Vijay Raaghavrao, Ronu Mujumdaar, Ramaakant Paatil.



Conch, Horn, Trumpet, Narasingha are also instruments that are in the Sushir Vaadya category. They are mostly used on battle fields.



### 3. Aanaddha or Avanaddha vaadya:

Instruments made from draping stretched leather or skin on the instrument are called Aanaddha or Avanaddha vaadya. Striking on the stretched leather or skin or pelt creates a sound. Examples: Tablaa, Pakhaavaj, Mrudang, Dholak, Damroo, Daflee, Nagaadaa, Dhol, Drum etc. These are called 'Taalvaadya' or percussion instruments. They produce only one swar. Hence these instruments are mainly used for laya (tempo) rather than swar or tune. They are mostly used for providing taal or percussion for vocal, instrumental or dance performances.

**Tablaa:** In Avanaddha vaadya, most popular one is Tablaa. It is used in most concerts for accompanying singer or instrument player. It has two parts: Tablaa and Dagga (Daayaan- Baayaan or Right one- Left one). Tablaa is made from hollow wood (usually Cedar) with leather stretched over it. In the middle of leather they put a round patch of black tar like substance. It is called 'Syaahee'.



Mouth of Tablaa and its height determine the swar. Narrow mouth gives higher octave swar. Tablaa is played with right hand fingers.

**Dagga:** It is made from Brass, Copper or German Silver metal alloy. It has wide mouth and Syaahee is not in the center but slightly off center. Syaahee improves the tonal quality of tablaa. Area around syaahee is called 'Maidaan'. The leather covering is called 'Pudi'. Pudi has a border of about 1.5 inches around its outer edge. It is called 'Chaat or Kinaar'.

At the outer edge of 'Kinaar' there is a narrow braided leather border. It is called 'Gajaraa'. 'Gajaraa' has 16 holes where a leather strip is woven through it and this strip is called 'Vaadi'. Vaadi is a long leather strip that is alternately woven through 'Gajaraa' on top and a narrow round ring at the bottom of Tablaa and Dagaa. Thick round 3 inch cylinders of wood ('Ghatta') are place between the body of Tablaa- Dagga and leather vaadi. Vaadi is pulled taut to tune Tablaa and Dagga. Tablaa has one swar and Dagga only has base sound with no swar.

**Mrudang:** This is an ancient instrument. Old epics like Raamaayan, Mahaabhaarat have descriptions of Mrudang. This used to be made from clay. Now Mrudang are made from wood. They are made like a barrel with narrow ends on both sides. One end is narrower than the other. The ends are covered with stretched leather like Tablaa and Daggaa. Tablaa and Dagga are said to be originated from Mrudang.

Pakhavaj is similar to Mrudang. Pakhavaj or Mrudang is played with Dhruvad. In Maharashtra, Bangaal Mrudang is played during Bhajan, Keertan, Dindi etc.

Dholak, Dafli are other Avanaddha vaadya.



### 4. Ghanavaadya:

Instruments where sound originates from any wood or metal are called 'Ghanavaadya'. Examples: Manjiraa, Jhaanjha, Ghungharoo, bells, Kartaal, Jaltarang, Kaashthatarang, Naltarang, Kaanchtarang etc. These instruments give only one swar and are used as accompaniment for performances.

Tata – Vitata and Sushir vaadya are used as solo and accompaniment instruments. Ghana vaadya and avanaddha vaadya are used for accompaniment. However, Tablaa, Pakhaavaj, Jaltarang can also be used for solo performances.