Summary:

1. The origin of the hexachord system

   The hexachord system was invented by Guido of Arezzo. The old Greek tetrachord from re to sol included the final tones of the Church modes. Guido extended the tetrachord by adding one tone on both sides.

2. Attributes of the hexachord

   Hexachords are balanced. They have two whole tones on each side and a halftone in the middle.

3. Use of the hexachord in Guido's teaching system

   Many early Christian songs have melodies with the range of six or less tones. Guido named the six tones according to a song dedicated to Saint John.
His students had to learn the song by heart to remind the six tones. The tones were not defined by their absolute pitch but by their functions in the system. Do is the final tone of a major scale, re the final tone of a minor scale, the half-tone is always between mi and fa, sol and la are kind of dominants. The hexachords were put over the complete Medieval tone scale as shown here:

The first line under the notes shows the German tone names, the second line the names of Guido. Hexachords starting on G are called durum (hard), starting on C naturale (natural), starting on F mole (soft). Hexacord durum uses the H (international B), hexachord mole the B (international B flat).

The hexachord allows Gregorian chant to create balanced melodies with the half-tone as center, often in form of question and answer.

If a melody includes tones outside the main hexachord these tones are named according to their position in the neighbour hexachord. In the following example B flat is not part of the hexachord naturale C (do) – A (la). As it forms a half-tone with A (la) it is called fa (“fa super la”). As the main melody uses only the fa of the hexachord mole, the other tones keep their names from the hexachord durum (as shown in the second line, red names).

It would be also correct to use the names mi-fa-mi-re (green names) because this tone progression can also be attributed to the (neighbour) hexachord mole. But when la steps to re, it is clear that the following tones belong to the hexachord naturale and the names change. Guido calls changes from one hexachord to another “mutation”.

(Orlando di Lasso’s fantasy 1577)
4. Conclusion

The hexachords and the relative solmisation are to make learning melodies easier. As they stress on the functions of and relations between tones and not on their absolute pitch, they can help to understand melody progressions better. The three hexachords durum, naturale and molle are not different modes. They are structured similarly.

Even if someone hasn’t knowledge about notation, the naming of the tones in the relative solmisation gives him information about the inner structure of the tune. Example: if the musician names his/her final tone re, the listener knows that the tune is minor. If he/she calls it do, the tune is major. When mi and fa occur, the position of the halftone is defined.

5. Analysis and singing exercise (see 3.)

![Diagram of a song with solfeggi and annotations.]

The key of the song is a fa-key. The tone fa is at the second line from above. The final tone is re (blue circle). It defines a minor tune. The interval re – fa is the small third of the minor tune (one whole tone and one halftone). Do (green circle) is only the leading tone. The yellow circle shows how the final tone (finalis) is fixed by alternating tones. The brown circle is a typical ending. The other circles show alternating tones that emphasise special tones.

6. Solution of the interval exercise (audio):

First number: number of the exercise, second number: interval

1.: 8, 2.: 6, 3.: 3, 4.: 5, 5.: 2, 6.: 4, 7.: 6, 8.: 3minor, 9.: 7minor, 10.: 5,
11.: 6, 12.: 4, 13.: 3, 14.: 5, 15.: 6, 16.: 2, 17.: 4, 18.: 7, 19.: 8, 20.: 5,
21.: augmented 4+ = devil’s interval, 22.: inverted 3, 23.: 6, 24.: 8