Filter Concepts

1. This is a basic type of Low Pass Filter (LPF) which has a frequency band below the passband cutoff frequency and above the stopband cutoff frequency.

2. This is an Elliptic Response Low Pass Filter which has a steep attenuation characteristic in the transition region, where the resonance of each resonator forms the pole in the stopband.

3. This is a basic type of High Pass Filter (HPF) which has a frequency band above the passband cutoff frequency and below the stopband cutoff frequency.

4. This is an Elliptic Response High Pass Filter which has a steep attenuation characteristic in the transition region, where the resonance of each resonator forms the pole in the stopband.
5. This is a Band Pass Filter (BPF) which is used of capacitive couplings and parallel resonators, and has the better attenuation characteristic in the lower frequency band than the passband. (Bandwidth < 10 %)

* This is a filter which has same characteristic by using the inductive couplings and the serial resonators.

6. This is a Band Pass Filter which attenuation characteristic in the lower band is improved, even though in the upper band the attenuation characteristic becomes worse, by inserting one attenuation pole in the lower band of center frequency of the filter that is used of capacitive couplings and parallel resonators.

7. This is a Band Pass Filter which attenuation characteristic in the lower band is improved, even though in the upper band the attenuation characteristic becomes worse, by inserting several attenuation poles in the lower band of center frequency of the filter that is used of capacitive couplings and parallel resonators.

8. This is a Filter which attenuation characteristic is improved by inserting the attenuation poles in the both bands of the Band Pass Filter that is used of capacitive couplings and parallel resonators.
9. This is a Filter which attenuation characteristic is improved by inserting several attenuation poles in the both bands of the Band Pass Filter that is used of capacitive couplings and parallel resonators.

* This filter has same characteristic by using cross coupling.

10. This is a Band Pass Filter which is used of inductive couplings and parallel resonators, and it has the better attenuation characteristic in the upper frequency band than the passband. (Bandwidth < 10 %)

* This is a filter which has same characteristic by using the capacitive couplings and the serial resonators.

11. This is a Band Pass Filter which attenuation characteristic in the upper band is improved, even though in the lower band the attenuation characteristic becomes worse, by inserting one attenuation pole in the upper band of center frequency of the filter that is used of inductive couplings and parallel resonators.

12. This is a Band Pass Filter which attenuation characteristic in the lower band is improved, even though in the upper band the attenuation characteristic becomes worse, by inserting the attenuation pole in the lower band of center frequency of the filter that is used of inductive couplings and parallel resonators.
13. This is a Filter which attenuation characteristic is improved by inserting the attenuation poles in the both bands of the Band Pass Filter that is used of inductive couplings and parallel resonators.

14. This is a Filter that the both attenuation characteristics of the band are balanced by inserting type circuit in the input and output ports of the Band Pass Filter that is used of inductive couplings and parallel resonators.

15. This is a typical Band Pass Filter which is realized by conversion from the basic type of Low Pass Filter. This is used in case the broad band is required.

16. This is a applied filter by combining the Low Pass Filter and High Pass Filter. The broad band Band Pass Filter can be realized.