## **Summary**

- Systematic sampling is a technique, which has a nice feature of selecting a whole sample with just one random start.
- A sampling technique in which first unit is selected with a help of random numbers and the others get selected automatically according to some pre-designed pattern until the desired sample size is reached is known as systematic random sampling.
- Sampling interval is an integer value of ratio of population size to the sample size.
- A random start is nothing but any number in between 1 to sampling interval.
- In systematic sampling, a sample comprise of the unit **r**, **r**+**k**, **r**+**2k**... **r**+(**n**-**1**)**k**. The technique will generate **k** systematic samples with equal probability.
- Types of systematic sampling are:
  - i. Linear Systematic sampling
  - ii. Circular Systematic Sampling
  - iii. Repeated (or replicated) systematic sampling
- Systematic sampling is often used when it is impractical or impossible to use simple random sampling.
- When compared to simple random sampling, in some instances, it is a stronger sampling procedure, and in other instances, it is a weaker sampling procedure.