

3- Arrangement of chambers:

Chambers are added in a variety of patterns:

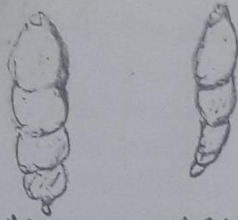
- a- **Uniserial manner:** A single row of chambers (if it form curved row it is termed **arcuate** or **curvilinear**, if a straight row it is formed **rectilinear**).
- b- **Biserial manner:** two rows of chambers.
- c- **Triserial manner:** Three rows of chambers.
- d- **Planispiral arrangement:** chambers arranged spirally around an axis of coiling and the spiral lies in one plane.
- e- **Trochospiral arrangement:** the spiral does not lies in one plane, but progresses up to the axis of coiling, the chamber arrangement becomes helicoidal.

When a series of chambers is arranged spirally or coiled about an axis, the Chambers involved in one complete revolution are termed a **whorl**, or coiled. The degree to which one whorl covers or hid a previous one is known as the degree of **involution**.

When the majority of previous coils are hidden a species is termed **Involute**. While **Evolute** if the majority of previous coils are visible. On a coiled test the side of the foraminifer showing the trace of coil, or spiral is termed **Spiral side**. The opposite side is termed the **Umbilical side**.

h- Annular or cyclical tests: it tests result when aspiral begins but enveloped in concentric chambers and chambers divided to chamber lets of the separated by secondary septula.

m- Streptospiral test: The Miliolidae have a streptospiral arrangement. The arched chambers tangential at their two extremities with extension axis, are arranged in cycles of five, three or two loculi or one loculus.



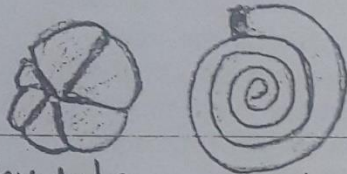
rectilinear arcuate
a. Uniserial manner



b. Biserial manner



c. Triserial manner



involute evolute
planispiral arrangement



spiral side



umbilical side

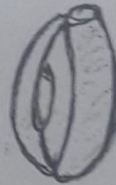
Trochospiral arrangement



Annular or cyclic test



Triloculina



Quinqueloculina

- Streptospiral test -

arrangement of chambers -

4- Suture: line of union between two chambers or between two whorls.

- a-** Thin, curved, depressed.
- b-** Thick, straight, flush with the surface.
- c-** Thin, straight, flush with the surface.
- d-** Thin, straight, depressed.
- e-** Thick, curved, raised.



thin, Curved, Raised



thin, straight, flush with the surface.



thick, straight, flush with the surface



thick, Curved, flush with surface.



thin, straight, depressed

Sutures lines