

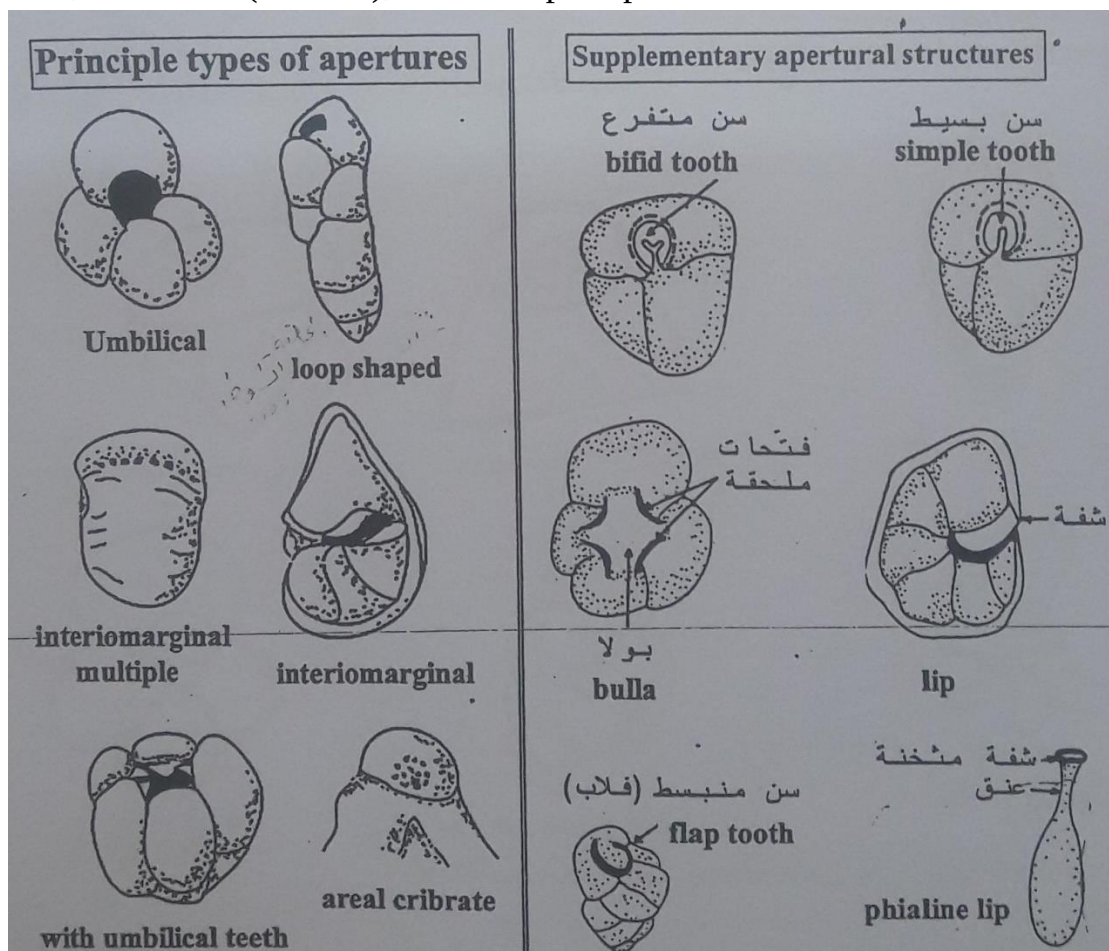
5- Apertures and Foramen:

The aperture is the primary opening of the test to the outside. Apertures vary in size and shape (In your practical description aperture is described according to its shape, position and the additional structures (modification) present in them).

Characteristically one aperture termed the primary aperture distinguishes the apertural side of the foraminifer. If two or more apertures occur on one chamber (as in the Eocene planktonic genus *Globigerinatheca*), they are termed supplementary apertures. The size or shape of an aperture may vary with environment.

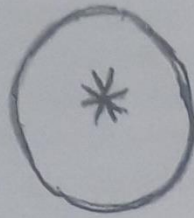
There are various structures that may modify the apertural opening like tooth, lip, phialine lip, bulla (structure that partially or completely cover primary or secondary apertures).

Apertures may be terminal, areal, basal, extraumbilical, umbilical or sutural in position. Their shape varies widely e.g. rounded, bottle-necked (phialine), radiate, dendritic, sieve-like (cribrate), slit or loop shaped.





open end of tube,



radiate terminal,



slit, terminal,



crescentic



hooded, subterminal,



loop-shaped,



single,



multiple
interiomarginal



cruciform,



areal-cribrate,



dentritic



umbilical.



interiomarginal
extraumbilical-umbilical,

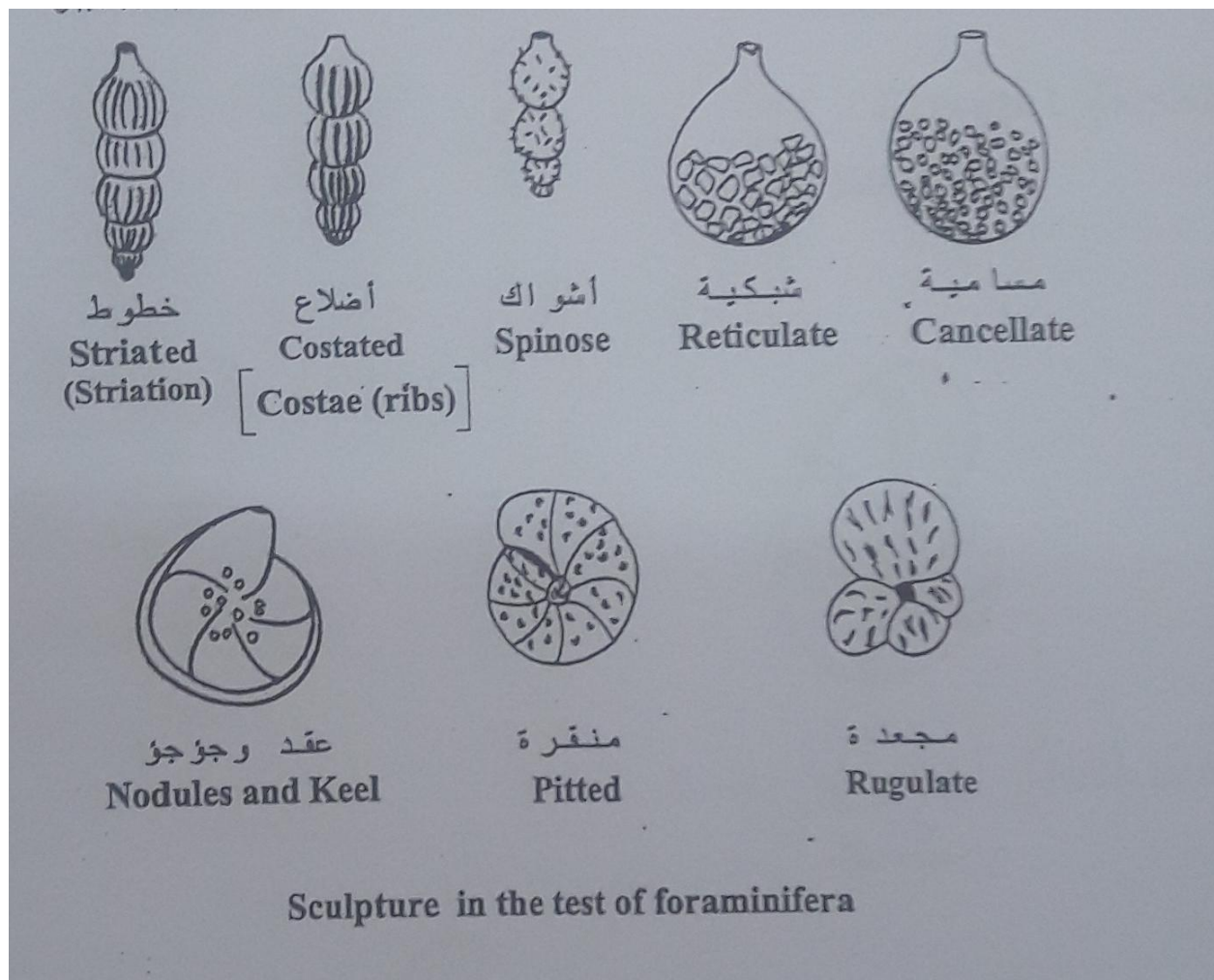


interiomarginal
Spiroumbilical

Apertures in foraminifera test.

6- Sculpture or Ornamentation:

The external surface of the test may bear spines (termed spinose), keel (carinate), rugae (rugose), fine striae (striate), coarser coastae (costate), granules (granulate) or a reticulate sculpture. These features should be used with caution in distinguishing certain genera and species for they vary through ontogeny and with environment.



7- Periphery of test:

1-Serial of tests:

a- Axial section: lobate, entire.

b- Equatorial section: rounded, lobate, angular

2- Coiling of tests:

a-equatorial section: entire, lobate.

b-axial section: rounded.

c-axial section: pinched.

d-axial section: angular with one keel.

e-axial section: Truncated with double keel.

8- Umbilical characters:

Umbilicus: the more or less wide depression forms between inner margins of umbilical walls of chambers belong to same whorl. Or the point at which sutures converge is the umbilicus.

1-Open wide

2-Open narrow

3-Closed

4-Umbonate

7- Periphery of test:

1- Serial of tests:

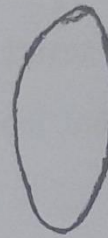


lobate

a- axial section:

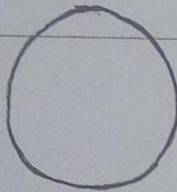


lobate

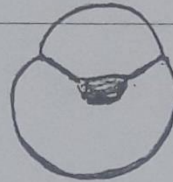


entire

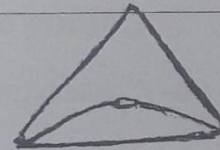
b- equatorial section:



rounded



lobate



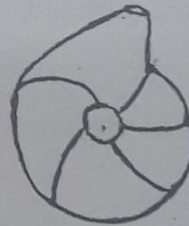
angular

2- Coiling of tests:

a- equ section:



lobate

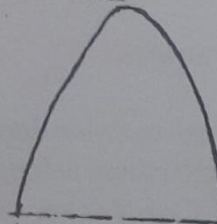


entire

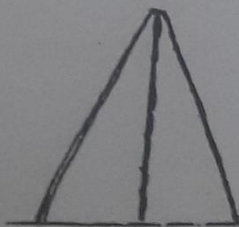
b- axial section



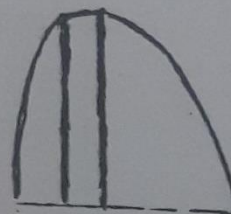
rounded



pinched

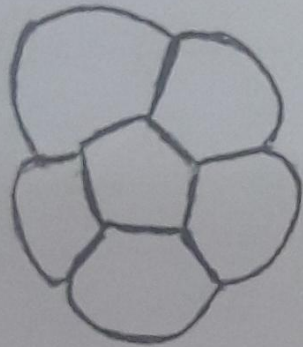


angular with one keel

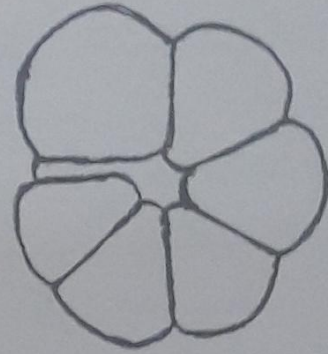


Truncated with double keel

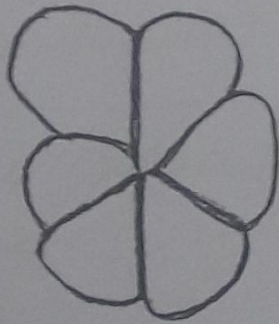
8-Umbilical characters:



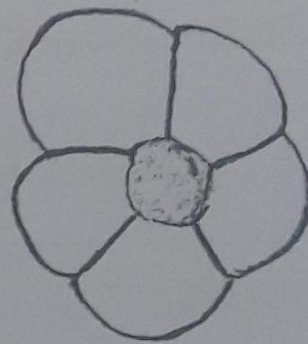
1- Open wide.



2- Open narrow.



3- Closed



4- Umbonate.