(2) Biting and Feeding Mechanism of Snakes :-

→ 1. FEEDING MECHANISM

- Snakes don't chew their food but swallow the whole. They never use their teeth for cutting and grinding.
- Snakes are carnivorus in feeding habit.
- They are capable to swallow the animals larger than their own bodies and in this way they differ from lizard's feeding habit. Snakes don't take even fully killed animal.

→ These are so many structural adaptations which make possible the swallowing of food.

(1) The two rami of lower jaw are loosely connected anteriorly by an elastic ligament which permits lateral expansion.

(2) Low jaw is also loosely attached posterior to the quadrate bones which in turn are loosely attached to skull.

(3) Bones of palate are also movable.

These features allow the mouth to expand several times the diameter of snake itself.

(4) Pectoral girdle is absent

(5) Sternum is absent, so ribs are free ventrally.

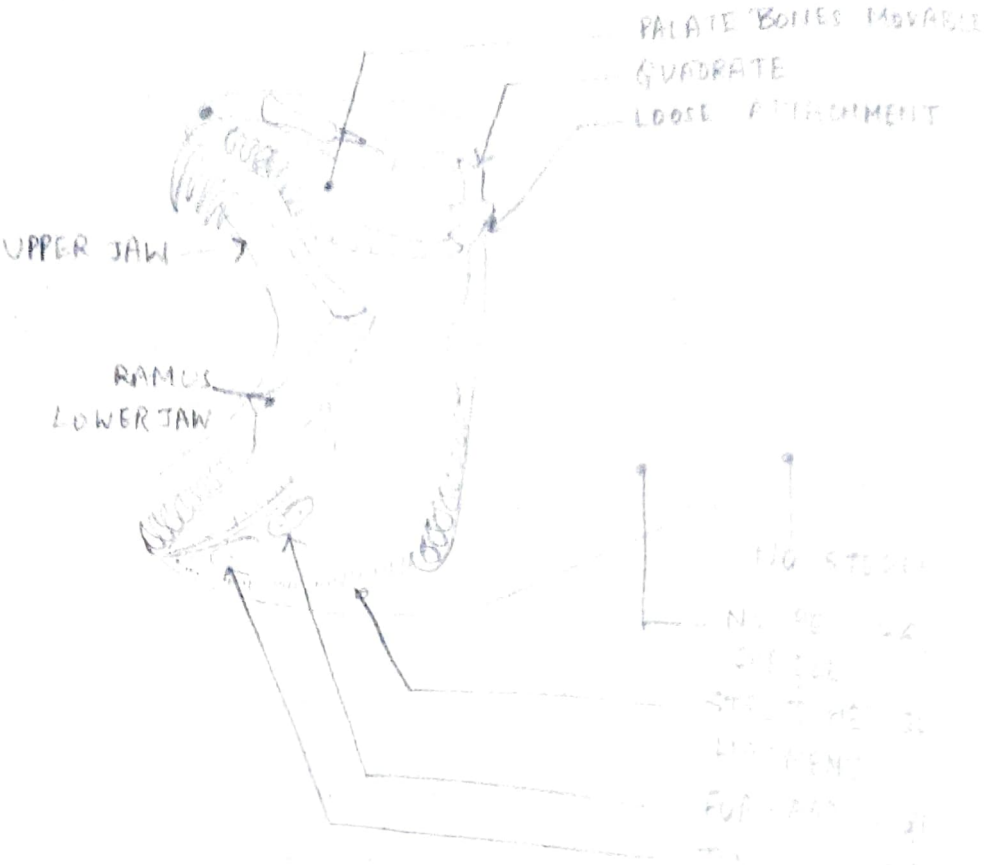
As a reasult, the throat and body are also capable of great distention.

(6) Glottis is located far anterior in floor of mouth, opening just behind the lower front teeth. Thus breating is not interfered while swallowing.

(7) Cartilages of trachea prevent it from being closed so that air passage remains open for breathing while swallowing.

During swallowing, their sharp teeth which curve inward prevent the prey from slipping forward. By moving the two sides of jaw alternately the snake gradually pushes the prey down into its oesophagus through which it passes by peristaltic movement into stomach.

Further digestion takes place by GIT's enzymes.



SNAKE'S MECHANISM OF SWALLOWING

→ POISON APPARATUS

→ All the poisonous snakes have poison apparatus in their head region which are necessarily absent in non-poisonous snakes.

NOTE:- Word poison is used for deadly activated chemical which can be produced artificially. Word venom is used for the same thing which is deadly activated but produced naturally by living organisms.
Here word poison apparatus in snake is misleading but frequently used although it should be used venom appropriately.

→ The poison apparatus consists of
(1) A pair of poison glands
(2) Their ducts.
(3) Fangs.
(4) Muscles.

FIG. ON NEXT PAGE.

POISON APPARATUS OF SNAKE

PARTS:

(a) Poison Gland –

– These are sac like structure, located one on either inner side of upper jaw, below the eyes and beneath also in position.

– These are modification of parotid gland which is also named superior labial gland.

– This is an example of exocrine gland.

– Glands are held in position with help of ligament.

– Each gland is encapsulated with fibrous tissue and mostly covered by a fan shaped constrictor muscle. Constrictor muscle is also called as ~~temporal or~~ masseter.

(b) Poison duct – ,

A narrow poison duct leads anteriorly from each poison gland to the base of poison fang to enter its groove or canal. These duct open in pocket of mucous sheath that covers the basal part of fang.

(c) Fang –

Front maxillary teeth are modified into fang. These act as poisonous teeth. Fangs are conical, curved and sharply pointed structure. These are used to insert poison in victim.

These are of following types (On the basis of str. & posn of fang)

(1) Protero glypha

(2) ~~Solenoglypha~~ Soleno glypha

(3) Opisthoglypha. (Opistho – behind).

* Fang