

Skull of Pigeon (Columba sp.)

Identification with Reasons :

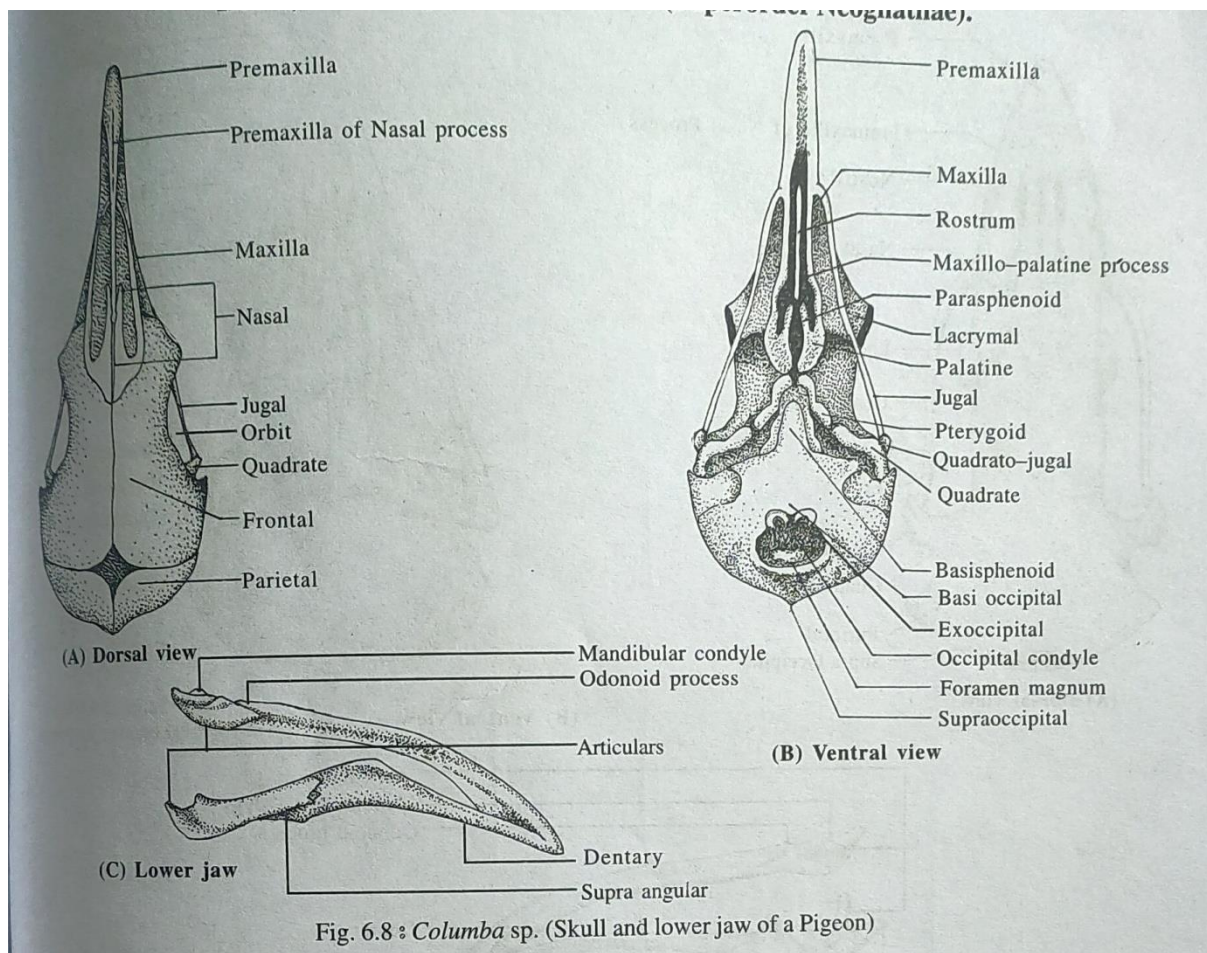
- (1) It is a compound structure, made of cartilages, bones or bones and cartilages.
- (2) This compound structure encloses a central cavity, the neurocranium where the brain lies.
- (3) Presence of foramen magnum at the back of this compound body, through which spinal cord emerges
- (4) Presence of occipital condyle(s) at the back of the skull.
- (5) This compound structure bears three sensory capsules as olfactory, orbital and otic capsules.

Hence, it is a skull.

- (1) Monocondylic skull i.e. single occipital condyle present.
- (2) Bones of the skull are thin, paper like but hard.
- (3) Sutures of the bones are absent.
- (4) Presence of a beak.
- (5) Presence of a cranio-facial hinge.

- (6) Foramen magnum directed downward.
- (7) Premaxilla is triradiated.

Hence, it is an Avian skull (Class Aves).



- (1) Vomer absent.
 - (2) Maxillo-palatine process slender and do not unite laterally.
 - (3) Elongated, ovoid, slit like external nostrils.
 - (4) Beak slightly long, narrow and weak.
 - (5) Anterior end of the beak is gently arched adapted for picking up grains.
- Hence, it is a skull of *Columba* sp.

Skull of Guineapig (*Cavia* sp.)

Identification with Reasons:

- (1) It is a compound structure, made of cartilages, bones or bones and cartilages.
- (2) This compound structure encloses a central cavity, the neurocranium where the brain lies,
- (3) Presence of foramen magnum at the back of this compound body, through which spinal cord emerges.
- (4) Presence of occipital condyle(s) at the back of the skull.
- (5) This compound structure bears three sensory capsules as olfactory, orbital and otic capsules.

Hence, it is a skull.

- (1) Large cranium, sutures between component bones well developed.
- (2) Presence of two occipital condyles.
- (3) Zygomatic arch (formed by maxilla, jugal and squamosal) well developed.
- (4) Glenoid fossa on the under surface of squamosal.
- (5) Thecodont and heterodont dentition.
- (6) Naso turbinal bones (Scroll bones) within the nasal cavity.
- (7) Bony secondary palate separating the nasal passage from the buccal cavity.

Hence, it is a Mammalian skull (Class Mammalia).

- (1) Orbit incomplete.
- (2) Zygomatic arch slender.
- (3) Temporal and orbital fossa confluent.
- (4) Incisor chisel shaped and one in each half.
- (5) Diastema well developed (a space between incisor and premolar, canine being absent).
- (6) Infraorbital foramen large.
- (7) Dental formula :

1.0.1.3

1.0.1.3

Hence, it is the skull of Guineapig (*Cavia* sp.).

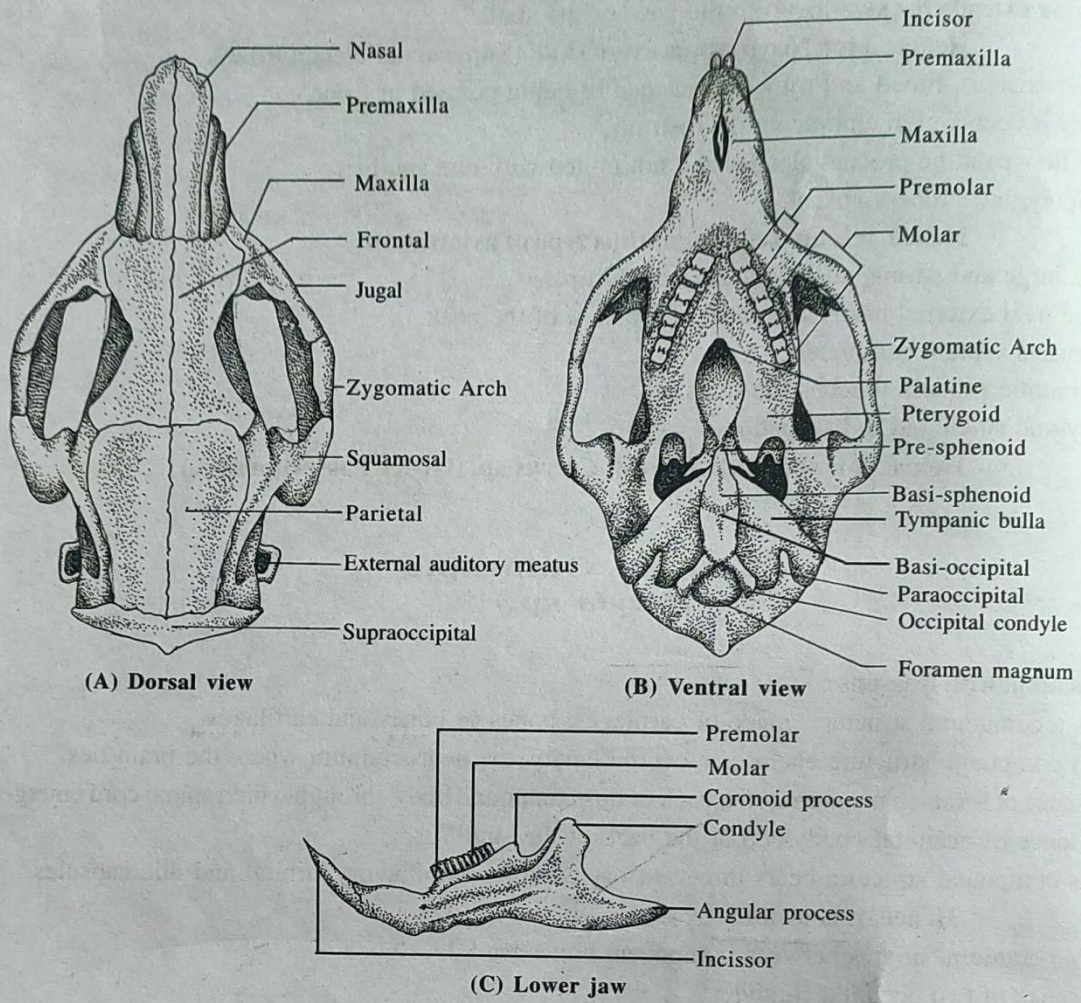


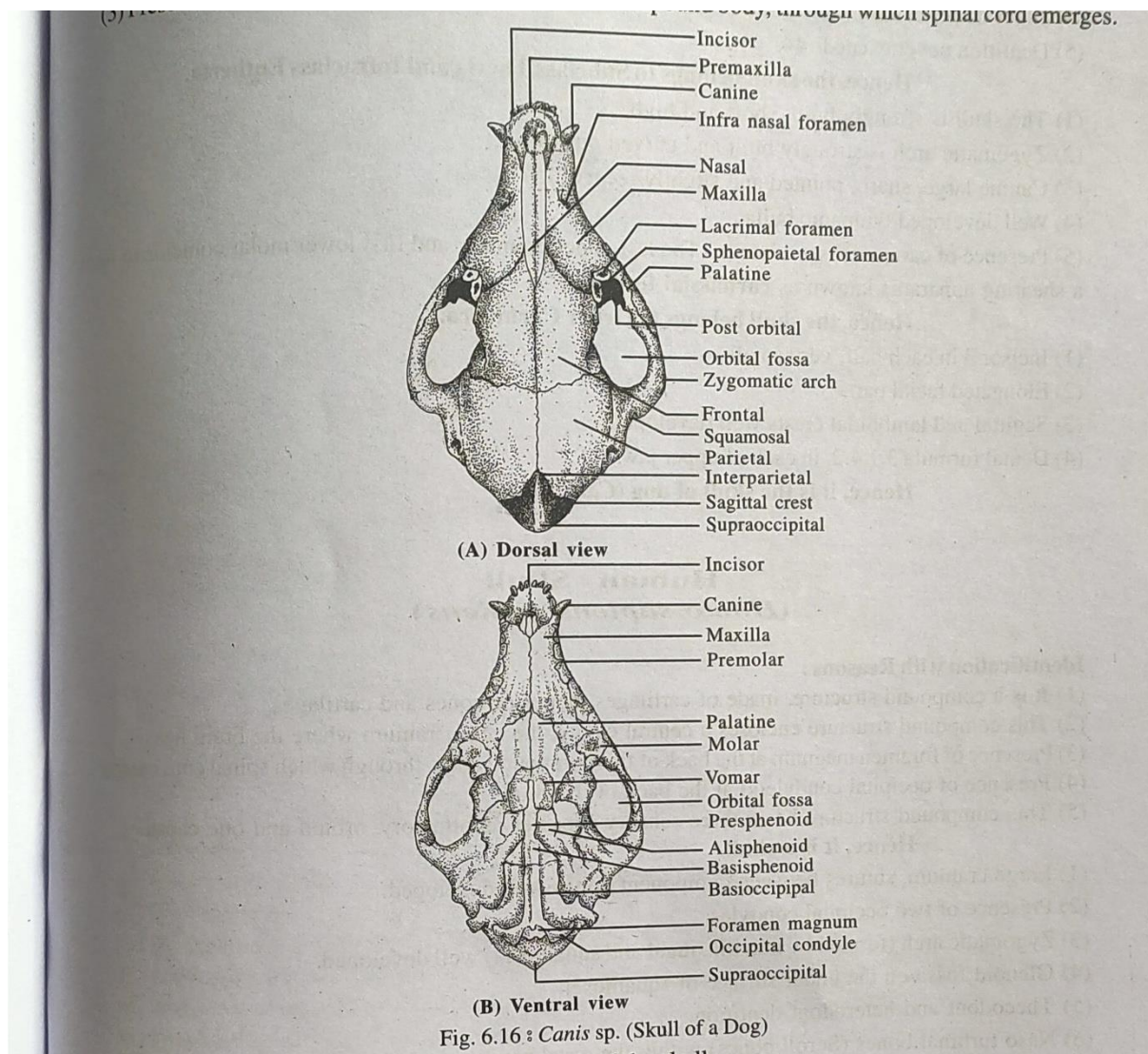
Fig. 6.13 : *Cavia* sp. (Skull and lower jaw of a Guinea pig)

(1) Infraorbital foramen large

Skull of Dog (*Canis sp.*)

Identification with Reasons:

- (1) It is a compound structure, made of cartilages, bones or bones and cartilages.
 - (2) This compound structure encloses a central cavity, the neurocranium where the brain lies.
 - (3) Presence of foramen magnum at the back of this compound body, through which spinal cord emerges.
 - (4) Presence of occipital condyle(s) at the back of the skull.
 - (5) This compound structure bears three sensory capsules as olfactory, orbital and otic capsules.
- Hence, it is a skull.



- (1) Large cranium, sutures between component bones well developed.
- (2) Presence of two occipital condyles.
- (3) Zygomatic arch (formed by maxilla, jugal and squamosal) well developed.
- (4) Glenoid fossa on the under surface of squamosal.
- (5) Thecodont and heterodont dentition.

(6) Naso turbinal bones (Scroll bones) within the nasal cavity.
(7) Bony secondary palate separating the nasal passage from the buccal cavity.
Hence, it is a Mammalian skull (Class Mammalia).

(1) Incisor 3 in each half, very small.
(2) Elongated facial part.
(3) Sagittal and lamboidal crests well developed.
(4) Dental formula 3.1.4.2. in each of upper jaw.
Hence, it is the skull of dog (*Canis sp.*)