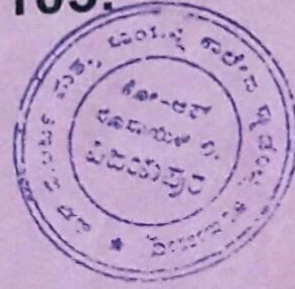


B.L.D.E. Association's

**S. B. Arts & K.C.P. Science College,  
VIJAYAPUR- 586 103.**



## ASSIGNMENT

For B.A./ B.Sc. ....<sup>II<sup>nd</sup></sup> Semester  
2016 - 2017

Name of the Student Pooja B. Angadi  
Roll No. 401 R.C.U. Seat No. 51622252  
Subject Zoology

Assignment No.	Date	Marks Assigned	Marks Obtained	Name and Signature of Teacher	Remarks
1	10/4/17	3	3	S. B. Savolagi	
2					
3					
4					



# Aves

## \* General Characters of Aves

1. Aves are feather-clad, air breathing, warm-blooded, oviparous, bipedal flying vertebrates.
2. Body is more or less spindle shaped & divisible into four distinct regions: head, neck, trunk and tail.
3. Limbs are two pairs. Forelimbs are modified as wings for flying. Hind limbs are large and variously adapted for walking.
4. Skin is dry and devoid of glands except the oil gland at the root of tail.
5. Pectoral muscles of flight are well developed.
6. Skull smooth and monocondylic, bearing a single occipital condyle. Cranium large and dome-like. Sutures indistinct.
7. Lower jaw or mandible consist of 5 or 6 bones and articulates with quadrate.
8. Vertebral column short. Centra of vertebrae heterocoelous.
9. Sternum large, usually with a vertical, mid-ventral keel for attachment of large flight muscles.
10. Ribs double-headed & bear posteriorly directed unciniate processes.
11. Both clavicles and single interclavicle fused to form a V-shaped bone called furcula.
12. Pelvic girdles large, strong and fused with synsacrum throughout its length.
13. Proximal carpals free. Distal carpals fuse with three metacarpals to form carpometacarpus.
14. Ankle joint is inter-tarsal.
15. Oesophagus is frequently dilated into a crop for quick feeding and storage.
16. Heart completely 4-chambered. There is neither sinus



- Sinus venosus non truncus arteriosus. Only right aortic arch persists in adult. Renal portal system vestigial. Red blood corpuscles nucleated. Birds are the first vertebrates to have warm blood. Body temperature is regulated.
17. Respiration by compact, spongy, non-distensible lungs continuous with thin-walled air-sacs.
  18. Larynx without vocal cords.
  19. Kidneys metanephric & 3-lobed. Ureters open into cloaca. Urinary bladder absent. Birds are uricotelic. Excretory substance of urates eliminated with faeces.
  20. Brain large but smooth. Cranial nerves 12 pairs. Olfactory organs poor. Middle ear contains a single ossicle. Eyes large & possess nictitating membranes.
  21. Sexes separate. Sexual dimorphism often well marked.
  22. Fertilization internal, preceded by copulation and courtship. Females oviparous.
  23. Eggs developed by external incubation.
  24. Parental care is well marked.

### Classification of Aves

Aves is first divided into two subclasses as follows:

- Sub Class: I. Archaeornithes
- \* Extinct, archaic, Jurassic birds of Mesozoic Age.
  - \* Wings primitive, with little power of flight.
  - \* Skull with teeth in both jaws.
  - \* Vertebrae amphicoelous.
  - \* Abdominal ribs present.

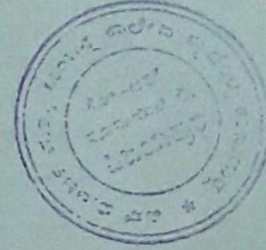
### Order Archaeopterygiformes

- \* Ex: Archaeopteryx lithographica.



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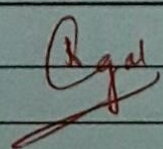
## ASSIGNMENT

For B.A./ B.Sc. II<sup>nd</sup> Semester  
2016 - 2017

Name of the Student Alshata.B. Nagareddy

Roll No. 384 R.C.U. Seat No. §1522014

Subject Zoology

Assignment No.	Date	Marks Assigned	Marks Obtained	Name and Signature of Teacher	Remarks
1	29/3/2016	03-	02		
2					
3					
4					



# 1) Write the Features of Mammalian.

\* General characters:

1) Hair clad, mostly terrestrial, air-breathing, warm-blooded, viviparous, tetrapod vertebrates.

2) Body is divisible into Head, Neck, Trunk and tail.

3) Limbs two pairs, pentadactyle, with 5 or fewer digits and variously adapted for walking, running, climbing, burrowing, swimming, or flying. Hind limb absent in cetaceans and sirenians.

4) Exoskeleton includes, lifeless horns, epiderm or hairs, spines, scales, claws, nails, hoofs, horns, bony plates etc.

5) Skin richly glandular containing sweat glands, sebaceous glands (oil) and sometimes scent glands in both the sexes. Female have mammary glands with teats producing milk for suckling the young ones. Egg laying mammals lack the teats.

6) A muscular partition, diaphragm, separates the thoracic cavity from the posterior abdominal cavity.

7) Endoskeleton is ossified, skull dicondylic having two occipital condyles, cranium large, each half of lower jaw made of a single bone, the dentary, cervical vertebrae usually seven.

8) Alimentary canal separated from terminates by anus, there being no cloaca except in egg laying mammals. Buccal cavity separated from the nasal passage by a hard palate. Teeth are heterodont, thecodont and may be diphyodont.