

B.Sc. 4th Semester (Honours) Examination, 2023 (CBCS)**Subject : Zoology****Course : CC-VIII****(Comparative Anatomy of Vertebrates)****Time: 2 Hours****Full Marks: 40***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as applicable.*

- 1.** Answer *any five* questions: $2 \times 5 = 10$
- (a) What is down feather?
 - (b) What do you mean by mesonephric kidney?
 - (c) What do you mean by diastema?
 - (d) What is Amphistylic jaw suspension? Mention its function.
 - (e) Distinguish between pulmonary and systemic circulation.
 - (f) What is duplex uterus?
 - (g) What do you mean by corpus callosum?
 - (h) What is Jacobson's organ?
- 2.** Answer *any two* questions: $5 \times 2 = 10$
- (a) Describe about different types of horns in mammals with suitable diagram.
 - (b) Describe ruminant stomach and comment on role of rumen microbiota in cattle digestion.
 - (c) Mention the origin, distribution and function of VI th and XII th cranial nerve of vertebrates.
 - (d) Discuss about different types of sense organs according to the response to stimuli.
- 3.** Answer *any two* questions: $10 \times 2 = 20$
- (a) Briefly mention the modification of aortic arches in Birds with suitable diagram. Elucidate the function of Mammalian ear in balancing and hearing. $5+5$
 - (b) Describe about different types of accessory respiratory organs of vertebrates. Write down the functions of air sacs in birds? Write a short note on larval gills. $4+2+4$
 - (c) Give a comparative account of heart in fishes and amphibians with proper diagram. What is Ductus caroticus? What do you mean by double circuit heart? $6+2+2$
 - (d) Compare Pronephric, Mesonephric and Metanephric kidney with proper diagram. What is head kidney? $8+2$