



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours Part-I Examination, 2020

ZOOLOGY

PAPER-ZOOA-I

Time Allotted: 2 Hours

Full Marks: 50

The figures in the margin indicate full marks.

Candidates should answer in their own words and adhere to the word limit as practicable.

1. Answer any **five** questions from the following: 2×5 = 10
 - (a) What is baleen? Where is it found?
 - (b) Define eusociality.
 - (c) Define Polymorphism.
 - (d) Distinguish between innate and learned behaviour.
 - (e) Write two major functions of contractile vacuoles.
 - (f) What is Biradial Symmetry?
 - (g) Distinguish between polyp and medusa.
 - (h) Distinguish between schizocoel and enterocoel.
 - (i) Why is Sphenodon called a living fossil?
 - (j) Define altruism.

2. Answer any **four** questions from the following: 10×4 = 40
 - (a) (i) Distinguish between Protostome and Deuterostome. 5
(ii) Illustrate the conjugation process in Paramecium with labelled diagram. 5
 - (b) (i) Draw and label a typical contour feather of a bird. 5
(ii) Give an account of various types of dentition in mammals. 5
 - (c) (i) Define integument. Give an account of exoskeletal structures of reptiles. 1+4
(ii) Write down the biting mechanism and venom delivery of a snake. 5
 - (d) (i) Classify class amphibian following an accepted scheme. 5
(ii) What do you know about the evolution of aortic arches in vertebrates? 5
 - (e) (i) Describe the feeding in cephalochordates with net diagram. 5
(ii) Define coral reef. Describe the process of coral reef formation with diagram. 5
 - (f) (i) Write the systematic position of the following animals. 2.5×2 =5
 - *Branchiostoma*
 - Horse.

- (ii) Mention the function of the following: 5
- Cnidoblast
 - Ink gland
 - Parapodia
 - Tube feet
 - Compound eye
- (g) (i) Write short note on 'Caste system of termites' What are the disadvantages of group living? 3+2
- (ii) Compare classical conditioning with instrumental learning. Discuss Tinbergen's four questions on studying animal behaviour with one example. 2+3
- (h) (i) Characterize different types of vertebrae and mention their occurrence. 5
- (ii) Describe the metamorphic changes in Ascidian larva with diagram. 5

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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