

PG/Zool/1st Sem/21(CBCS)

2021

ZOOLOGY

Paper Code : ZOOL 101

(Advances in Non-chordates and Chordates)

[CBCS]

Full Marks : 40

Time : Two Hours

The figures in the margin indicate full marks.

Write your answer within 1 page/200 words for the questions carrying 3 marks each and 2 pages/350 words for the questions carrying 6 marks each.

Group - A

(Advances in Non-chordates)

1. Answer any *two* questions from the following : 1×2=2
 - (a) Name the protozoa where mixotrophic type of nutrition is found.
 - (b) State the role of Bursicon.
 - (c) What is cryptobiosis?

2. Answer any *two* questions from the following : 3×2=6
 - (a) Differentiate between adult worms of *Taenia solium* and *Taenia saginata*. 3
 - (b) What do you mean by mandibulate and haustellate type of mouth parts? From where egg diapause hormone is released? 2+1
 - (c) Briefly describe the circumfluence and circumvallation food ingestion method of *Amoeba* sp. 1½+1½
 - (d) What is traumatic myiasis? Name the causative agent. 2+1

3. Answer any *two* questions from the following : 6×2=12
- (a) Briefly describe the filter feeding process of *Unio*. Name the protozoa where the caprozoic type of nutrition is found. 5+1
- (b) Give an account on the regulation of diapause by insect hormones. Briefly describe the phases of diapause. 3+3
- (c) What do you mean by cysticercus cellulosae and cysticercus bovis? Write down the clinical manifestation of myiasis. 2+4
- (d) Write short notes on : 3+3
- (i) Lipid storage and mobilisation in overwintering insects.
- (ii) Process of nutrition in *Paramoecium*.

Group - B
(Advances in Chordates)

4. Answer any *two* questions from the following : 1×2=2
- (a) Name the articulated elements present in a pharyngeal arch.
- (b) Write down the function of tunica externa.
- (c) What do you mean by “ground effect”?
5. Answer any *two* questions from the following : 3×2=6
- (a) State the advantages of an akinetic skull. 3
- (b) Differentiate between the hydrostatic pressure and osmotic pressure in lymphatic vessel. 3
- (c) Why bones of large animals are relatively more massive and robust than the bones of small animals? 3
- (d) What is edema? Name the major vessels of the lymphatic system. 2+1

6. Answer any *two* questions from the following : 6×2=12
- (a) Illustrate the development of splanchnocranium in vertebrates. 6
 - (b) With a suitable diagram explain lingual feeding in lizards. 6
 - (c) Write a short note on stability and maneuverability during bird's flight.
What do you mean by fast level flight? 4+2
 - (d) Describe briefly the function of microcirculation. Name the major adjoining chambers of embryonic vertebrate heart. 4+2
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