

Roll No :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

SP-665

M.Sc. (Final) Examination, 2021

ZOOLOGY

Paper - V

(Chordata and Developmental Biology of Chordates)

Time : 1½ Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

नोट :- सभी दस प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 50 शब्द)। प्रत्येक प्रश्न 2 अंक का है।

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 5 marks.

(खण्ड-ब)

(अंक : 5 × 5 = 25)

नोट :- सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा 200 शब्द)। प्रत्येक प्रश्न 5 अंक का है।

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit 500 words). Each question carries 10 marks.

(खण्ड-स)

(अंक : 10 × 3 = 30)

नोट :- पाँच में से किन्हीं तीन प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 500 शब्द)। प्रत्येक प्रश्न 10 अंक का है।

BI-306

(1)

SP-665 P.T.O.

Section–A

2 each

1. (i) What do you mean by Protochordates ?
- (ii) Write the characteristic features of Tunicates.
- (iii) What do you mean by Adaptive Radiations ?
- (iv) Write about the evolutionary significance of Dinosaurs.
- (v) Define Gene Amplification
- (vi) What is Fate Map ?
- (vii) What is Morphogenesis ?
- (viii) Write about the significance of Cell Differentiation.
- (ix) What do you mean by Viviparity ?
- (x) Write the name of extraembryonic membranes and their functions.

Section–B

5 each

2. Discuss interrelationships of cephalochordata and urochordata.

Or

Write in brief about Fossilization.

3. Discuss affinities of Sphenodon.

Or

Write a note on Prototherians.

4. Discuss about preformation and epigenetic theories.

Or

Describe the role of yolk in determining various types of eggs.

5. Write a note on Lens Differentiation.

Or

Describe Morphogenesis of the Brain.

6. Describe various functions of Placenta.

Or

Write a note on limb regeneration in Amphibia.

Section–C

10 each

7. Write an essay on Origin of Chordates.

8. Describe origin and evolution of Reptiles.

9. What do you mean by Morphogenetic Movements ? Describe various types of morphogenetic movements occurring during gastrulation.

10. Describe the development of alimentary canal and its accessory organs.

11. Discuss structural and physiological changes during metamorphosis of frog.