

7244

M.Sc. IInd Semester EXAMINATION, 2018

ZOOLOGY

Paper – IV

(Animal Physiology and Immunology)

Time: Three Hours

Maximum Marks: 80

PART – A (खण्ड – अ)

[Marks: 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब)

[Marks: 40]

Answer five questions (250 words each).

Selecting one from each unit. All questions carry equal marks.

प्रत्येक इकाई से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स)

[Marks: 20]

Answer any two questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – A

- Q.1 (i) What is torpor?
(ii) Define counter current heat exchangers.
(iii) What is osmoconformers?
(iv) Give the example of osmoregulatory organ.
(v) What is Haldane effect?
(vi) Define Bohr Effect.
(vii) What is Heptanes?
(viii) What is adaptive immunity?
(ix) Define Complement system.
(x) What is MHC?

PART – B

UNIT –I

- Q.2 Describe the heat balance and exchange.
Q.3 Write a brief account of hibernation and aestivation.

UNIT –II

- Q.4 Give an account osmoregulators with suitable example.
Q.5 Explain osmoregulatory organs in animal and their function.

UNIT –III

- Q.6 Give an account oxyhaemoglobin dissociation curve.
Q.7 Describe mechanism of inspiration and expiration in terrestrial animals with suitable diagram.

UNIT –IV

Q.8 Write a brief account cells and organs of immune system.

Q.9 Explain innate and adaptive immune system.

UNIT –V

Q.10 Give a detail account of hypersensitivity.

Q.11 Explain major histocompatibility complex.

PART – C

Q.12 Explain thermoregulation and cold tolerance.

Q.13 Discuss osmoregulation in aquatic and terrestrial environments.

Q.14 Write a short note on the following:

(i) Chloride shift

(ii) Regulation of body pH

Q.15 General Account of antibody classification and function.

Q.16 Explain detailed account of vaccines.
