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V Semester B.Sc. Examination, December - 2019
(CBCS)(Freshers and Repeaters)(2016-17 and Onwards)

ZOOLOGY

PAPER-5 : ENVIRONMENTAL BIOLOGY AND ETHOLOGY

Time : 3 Hours

Max. Marks : 70

Instructions : (i) Draw neat labelled diagrams wherever **necessary**.
(ii) Answers should be completely in **English** or **Kannada**.

PART - A

I. Answer **any five** of the following.

5x3=15

1. State the laws of thermodynamics.
2. Distinguish between Microhabitat and Macrohabitat.
3. Differentiate between Hydrosere and Xerosere.
4. Mention any three applications of remote sensing.
5. Write a note on phototaxis. Give an example.
6. What is bioluminescence ? Mention its significance.
7. Write a note on Predatory mimicry.

PART - B

II. Answer **any five** of the following.

5x5=25

1. Define ecological niche. Explain trophic niche with an example.
2. Explain age distribution with reference to population ecology.
3. What are the causes and effects of ozone layer depletion ?
4. What is biomagnification ? Explain with an example.
5. Write notes on red data book.

P.T.O.



6. Explain trial and error method of learning with suitable example.
7. Give an account on the communication in Honey bees.

PART - C

III. Answer any three of the following.

3x10=30

1. "Temperature as an abiotic factor". Discuss.
2. Write notes on :
 - (a) Mutualism
 - (b) Parasitism
3. Give a detailed account on integrated pest management.
4. Explain ex-situ method of wild life conservation.
5. Write an essay on migration in birds.
6. Explain the role of pheromones in animal communication.

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(CBCS) (F+R) (2016-17 and Onwards)

ZOOLOGY PAPER - VI

Developmental Biology And Organic Evolution

Time : 3 Hours

Max. Marks : 70

- Instructions :** (i) Draw neat labelled diagrams wherever necessary.
(ii) Answers should be completely in **English** or **Kannada**.

PART - A

I. Answer any five of the following :

5x3=15

- State Preformation Theory.
- Define Viviparity. Give an example.
- Write a note on primary organizer.
- What is deciduate placenta ? Give an example.
- Write a note on genetic drift.
- Define Sympatric Speciation. Give an example.
- What are :
 - moulds
 - casts

PART - B

II. Answer any five of the following :

5x5=25

- Classify eggs based on the amount of yolk.
- With reference to hydroid coelenterates, explain child's axial gradient theory.
- Differentiate between Determinate and Indeterminate cleavage giving examples.
- Compare blastulation in Amphioxus and frog.
- Write a note on the fate map of frog.
- Define placenta. Differentiate between Yolk sac and Chorio-allantoic placenta.
- Explain the carbon method of dating fossils.

P.T.O.



PART - C

3x10=30

III. Answer **any three** of the following :

- (a) Explain the process of oogenesis with illustrations.
- (b) Explain the mechanism of regeneration.
- (c) What is cell lineage ? Explain with reference to Nereis.
- (d) Describe the extra-embryonic membranes of chick. Add a note on its functions.
- (e) Natural selection is an evolutionary force. Explain.
- (f) Write notes on :
 - (i) Homo erectus
 - (ii) Neanderthal man

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