SS – 372

V Semester B.Sc. Examination, Nov./Dec. 2018
(CBCS) (Freshers and Repeaters) (2016-17 and Onwards)
ZOOLOGY – Paper – V
Environmental Biology and Ethology

Time : 3 Hours Max. Marks : 70

Instructions : *1) Draw **neat** labelled diagrams **wherever** necessary.*
*2) Answers should be completely in **English** or **Kannada.***

PART – A

I. Answer **any five** of the following : **(5×3=15)**

1) What is autecology ? Give an example.
2) Write a note on net primary productivity.
3) Briefly explain antibiosis with a suitable example.
4) Define pesticides. Give two examples.
5) Give a brief account of land filling.
6) What are instincts ? Give an example.
7) Mention three diagnostic features of biological clock.

PART – B

II. Answer **any five** of the following : **(5×5=25)**

1) Discuss soil as an abiotic factor.
2) With respect to population ecology explain :
   a) Density
   b) Biotic potential.
3) What is ecological succession ? Explain the same with respect to hydrosere.
4) Enumerate the detrimental effects of lead and arsenic.
5) What is GIS ? List the applications.
6) Give an account of imprinting.
7) Write an explanatory note on parental care in fishes.

P.T.O.

PART – C

III. Answer **any three** of the following : **(3×10=30)**

1) Define ecological niche. Explain the types with examples.

2) Give a detailed account of the causes, effects and mitigation of green house effect.

3) Sun and wind are non-conventional renewable sources of energy. Justify.

4) Write notes on :
   a) Red data book
   b) Biosphere reserves.

5) Discuss social behaviour in honey bees.

6) Explain :
   a) Eco-location in bats.
   b) Role of pheromones in insects.

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ZOOLOGY (Paper – VI)
Developmental Biology and Organic Evolution

Time : 3 Hours

Max. Marks : 70

Instructions : *1) Draw **neat** labelled diagrams **wherever** necessary.*
*2) Answers should be **completely** in **English** or **Kannada.***

PART – A

I. Answer **any five** of the following : **(5×3= 15)**

1) Give the views of ovists and animalculists.

2) What are secondary egg membranes ? Give an example.

3) Define oviparity citing a suitable example.

4) Explain the role of fertilizin and antifertilizin in fertilization.

5) With reference to embryonic induction, define :
a) Inducer b) Evocator c) Responder.

6) Give the significance of Hardy-Weinberg Law.

7) Write a note on allopatric speciation.

PART – B

II. Answer **any five** of the following : **(5×5= 25)**

1) Draw a neat labelled diagram of hen's egg.

2) Give a brief account of estrous cycle.

P.T.O.

3) Mention the functions of :
   a) Allontois.
   b) Amnion.

4) Explain blastulation in frog.

5) What is placenta ? Distinguish between deciduate and non-deciduate placenta.

6) Explain lead method of dating of fossils.

7) Enumerate the salient features of Cromagnon man.

PART – C

III. Answer **any three** of the following : **(3×10= 30)**

1) What is polyspermy ? Explain the mechanisms to block polyspermy.

2) Give an account of :
   a) Fate map of blastula of chick.
   b) Regeneration in amphibia.

3) Describe the process of gastrulaton in Amphioxus.

4) Explain the morphological and physiological changes during metamorphosis of frog.

5) What is isolation ? Explain post-zygotic isolating mechanisms.

6) Write notes on :
   a) Analogous structures.
   b) Adaptive radiation.
