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FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, OCTOBER 2017 (CUCBCSS-UG)

CC15U ZO5 B07-ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY

(Zoology - Core Course)

(2015-Admission Regular)

Time: Three Hours

I. Answer *all* questions. Each question carries 1 Mark.

- 1. Who proposed "Theory of punctuated equilibrium"?
- 2. What is pre-adaptation?
- 3. Define crepuscular animals with an example.
- 4. Which is the memory associated with consciousness?
- 5. What is an Oceanic island? Give an example.
- 6. What are living fossils? Give an example.
- 7. Define the theory of Panspermia.
- 8. What are homologous organs?
- 9. What are coacervates?
- 10. Name the golden age of reptiles.

(10x1=10 Marks)

II. Answer *any ten* questions. Each question carries 2 Marks.

- 11. Explain the significance of pheromones
- 12. Write short notes on Wallacea.
- 13. Explain the theory of island biogeography.
- 14. Give an account of diapause
- 15. Briefly explain the different types of innate behaviour
- 16. Describe Bipolar Distribution with an example.
- 17. Define bottle neck effect with example.
- 18. Discuss the main causes behind animal distribution?
- 19. Explain Neo-Lamarckism
- 20. Explain the Oparin Haldane theory.
- 21. Briefly describe the Cambrian explosion.
- 22. Explain the germ plasm theory and its significance

Maximum: 80 Marks

III. Answer *any five* questions. Each question carries 6 Marks.

- 23. Briefly explain Pavlovian conditioning.
- 24. Describe the important barriers to animal distribution
- 25. Write short notes on Neotropical region and its faunal composition.
- 26. Explain the Hardy Weinberg principle and the factors affecting the equilibrium.
- 27. Discuss about allopatric and sympatric speciation?
- 28. Explain the main postulates of Lamarck's theory
- 29. Discuss the major features of geological time scale
- 30. Explain the important evidences for organic evolution

(5x6=30 Marks)

IV. Answer any two questions. Each question carries 10 Marks

- 31. Discuss the different types of learned behavior with suitable examples
- Explain the characteristics and significance of the major biogeographical zones of India
- 33. Explain Darwinism with an example. Comment on the major criticisms against it.
- 34. Explain the different types of isolating mechanisms. Comment on its role in evolution

(2x10=20 Marks)
