

**B.Sc. DEGREE EXAMINATION NOVEMBER 2014**  
**BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY**  
**FIFTH SEMESTER**

**COURSE : MAJOR ELECTIVE**  
**PAPER : EVOLUTION**  
**TIME : 3 HOURS**

**MAX. MARKS: 100**

**SECTION A**

**ANSWER ALL QUESTIONS**

**(10X3=30)**

**1. Fill in the blanks**

- a) The reappearance of ancestral characters in the descendants is called \_\_\_\_\_.
- b) The chemical substances having similar structure to that of DNA is called \_\_\_\_\_.
- c) In \_\_\_\_\_ isolation, the difference in sexual behavior prevents inbreeding.

**2. Match the following**

- |                     |   |                        |
|---------------------|---|------------------------|
| a) Cosmozoic theory | - | Goldschmidt            |
| b) Living fossil    | - | Placoderms             |
| c) Weldon           | - | Richter                |
| d) Devonian period  | - | Missing link           |
| e) Microevolution   | - | <i>Carcinus meanus</i> |
| f) Seymouria        | - | Sphenodon              |

**3. Choose the correct answer**

- a) Horses and antelopes is the example for
  - i) Adaptive radiation
  - ii) Parallel evolution
  - iii) Convergent evolution
- b) Founders principle was proposed by
  - i) Sewal wright
  - ii) Dobansky & Haldane
  - iii) Mayr & Sheppard
- c) The ancestor of elephant is
  - i) Moeritherium
  - ii) Oreopithecus
  - iii) Equus

**4. State true or false**

- a) In degressive species, some of the vital characters are lost and the survival is difficult.
  - b) In pyritization the original material is replaced by carbon pyrites.
  - c) Phillippines is not a continental island.
5. List out the different stages in the origin of life.
6. Differentiate convergent and divergent evolution.
7. Define sibling species.
8. What is meant by mega evolution?
9. Comment on any three advantages of molecular data.
10. What are mastodons?

**SECTION B**

**ANSWER ANY FIVE QUESTIONS**

**(5X6=30)**

11. Write short notes on the dating of fossils.
12. Tabulate geological time scale.
13. Give an account on the distribution of animals.
14. Distinguish between sympatric and allopatric speciation.
15. Explain the different kinds of mimicry.
16. Write a note on the evolution of man.
17. Comment on molecular marker

**SECTION-C**

**ANSWER TWO QUESTIONS**

**(2X20=40)**

18. Write an essay on Darwinism.
19. Elaborate on Zoogeographical realms.
20. Give a detailed account on C- value paradox.
21. Discuss the evolution of horse in detail.

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