

Mid-West University
Examinations Management Office
Surkhet, Nepal
End Semester Examinations -2078

Bachelor level/ B.Sc / 5th Semester

Time: 3 hrs

Full Marks : 100

Pass Marks : 50

Subject : Evolutionary and Developmental Biology (ZOO 451)

Candidates are required to give their answers as far as practicable. The figures in the margin indicate full marks.

Group A

1. **Write very short answer of the following questions (any ten):**

[10x1=10]

- a. Define hybrid sterility.
- b. What are factors of Microevolution?
- c. Write any two differences between Darwinism and Neo-Darwinism.
- d. Write important events of Carboniferous Period.
- e. How use and disuse of organs provides evidence of organic evolution?
- f. What is Geological Time Scale
- g. What is Cotyledonary placenta?
- h. Give any two examples of Isolecithal egg.
- i. What is the type of coelom of Amphioxus?
- j. What is neurentic canal?
- k. Write functions of allantois.
- l. Define primitive streak.

Group B

Answer any eight questions in brief from this group:

[8x5=40]

2. How Paleontology provides evidence of organic evolution?
3. Elaborate concept of Adaptive radiation.
4. Write a short note on Macroevolution?
5. Describe Allopatric type of Speciation.
6. Describe types of cleavage.
7. Explain the structure of egg of hen.
8. Write short note on gastrulation in Rabbit.
9. Explain formation of notochord and neural tube in Chick.
10. How blastocyst of Rabbit is implanted? Describe.

Group C

Attempt any five questions from this group:

[5x10=50]

11. Elaborate concept of Darwinism.
12. Describe Reproductive mechanism of Isolation.
13. Describe formation of extra-embryonic membrane in Rabbit.
14. Discuss Biogeographical distribution of animals to support organic evolution.
15. Describe Gastrulation in *Amphioxus*.
16. Describe the types of placenta on the basis of Histological structure.

THE END