



**QUAID-I-AZAM UNIVERSITY**  
**ISLAMABAD**

B.Sc. Annual Examinations--2013  
(PART-I)

Roll No: \_\_\_\_\_

SUBJECT: **Zoology**

PAPER: **A (Theory)**

**June 14, 2013**

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**(Subjective Part) To be attempted in 2 hours and 30 minutes**      **Max Marks: 20**

**Section-II (Short Questions)**

**Note: Answer any three of the following**

- Q. No.4** Differentiate between: (2)
- (a) homologous and analogous organs.
  - (b) primary and quaternary structure of proteins.
  - (c) simple and facilitated diffusion.
  - (d) microtubules and microfilaments.
- Q. No.5** Do as required. (2)
- (a) What are co-factors? How do they function?
  - (b) How does fermentation occur?
- Q. No.6** Describe the three types of survivorship curves. (2)
- Q. No.7** Give diagrammatic representation of the nitrogen cycle. (2)
- Q. No.8** Answer the following: (0.5+0.5+1)
- (a) What is mimicry?
  - (b) What is NICHE DIVERSIFICATION?
  - (c) What are zones of massive Ecosystem?

**Section-III (Long Questions)**

**Note: Give detailed answers to any of the two questions.**

- Q. No.9** Explain the following:
- (a) Factors affecting rate of enzyme reaction. (3)
  - (b) Types of movements through plasma membrane. (4)
- Q. No.10** Do as required.
- (a) What are functions of proteins? (3)
  - (b) Differentiate between torpor hibernation and winter sleep. (4)
- Q. No.11** Explain the ways of ATP generation during aerobic respiration. (7)