# MODEL PAPER ZOOLOGY A
Quaid-i-Azam University  
Session 2012-2013

ROLL NO:  

ZOOLEGY PAPER –A  B. Sc PART-I

Time: 3 Hours  
Max. Marks: 26

**NOTE:** Cutting and over writing is not allowed in objective part. In Part –I all questions are compulsory. Attempt three question from Part-II and two from Part-III.

### Q NO.1: Correct the statement. Mark tick against the correct ones. \((0.25 \times 8 = 2)\)

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Statement</th>
<th>True/False</th>
<th>Correct Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Skin is composed of stratified squamous epithelial tissue.</td>
<td></td>
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<tr>
<td>2</td>
<td>Ribozymes are protein in nature.</td>
<td></td>
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<td>3</td>
<td>Each successional stage is called sere.</td>
<td></td>
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<tr>
<td>4</td>
<td>The type of symbiotic relationship where both species benefit is termed commensalisms.</td>
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<tr>
<td>5</td>
<td>We are living in Mesozoic Era.</td>
<td></td>
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<tr>
<td>6</td>
<td>Compounds with the same molecular formula but different structure are isomers.</td>
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<tr>
<td>7</td>
<td>Forests are an example of climax community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>ATP acts as an inhibitor of Phosphofructokinase enzyme</td>
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### Q NO.2: Choose the best choice for the statement from the multiple choices given below: \((0.25 \times 8 = 2)\)

1: ________ bonds form when an atom or group of atoms develop an electric charge and attracts an atom and group of atoms with an opposite charge.  
   a) covalent  b) hydrogen  c) ionic  d) polar
2: The end product of glycolysis is
   a). glucose 6-phosphate   b). pyruvate   c). fructose 6-phosphate   d). fructose 1,6-diphosphate

3: Which of the following is not a function of the cell's glycoalyx?
   a) transport   b) cell-to-cell recognition   c) behavior   d) recognition

4: A typical food chain consists of
   a) primary consumers   B) secondary consumers   C) decomposers   d). all of the above (a-c)

5: lower the amount of energy required to initiate a chemical reaction.
   a) Catalysts   b) Enzymes   c) Ribozymes   d) all of the above (a-c)

6: The zoological name of house fly is:
   a) Perissodus microlepis   b) Musca domestica   c) Apis melifera   d) Tabanus opacus

7: A community and its physical surroundings make up a/an __________
   a) biome   b) ecosystem   c) habitat   d. niche

8: Overall, about _______ percent of the food consumed at one trophic level is converted into new biomass.
   a) 5   b) 10   c) 20   d) 60

Q NO.3 Fill in the blank by appropriate word. (0.25 X 8=2)

1: ______________ is the study of the classification of, and the evolutionary interrelationships among, animals groups.

2: A ______________ species likely to become endangered in the near future.

3: The idea of ______________ hypothesis was first proposed by Lynn Margulis, a biologist at Boston University.

4: Factors such as temperature, pH, substrate concentrate, cofactors, and ______________ can effect the reaction rate of an enzyme.

5: ______________ inhibition helps regulate metabolism and maintain homeostasis within organisms.

6: ______________ are animals that deposit eggs or other developmental stages on another animal.

7: ______________ ecosystem consists of relatively shallow water that extends from the littoral zone to the edge of continental shelves.

8: The first community to establish in an area is called the ______________.
Note: Answer any three of the following questions.

Q.4. Differentiate between the followings.
   a) Density dependent and density independent factors
   b) Nitrogen fixation and Nitrification
   c) Substrate level phosphorylation and chemiosmosis
   d) Homologous and analogous structures.

Q.5. Give answers to the following.
   a) What are buffers and why are these important to animal.
   b) What is the significance of chemical modification done by Golgi apparatus?

Q.6. Give the diagrammatic representation of carbon cycle.

Q.7. Write a note on symbiosis.

Q.8. i) What are Estuaries?
    ii) What is niche diversification?
    iii) List continents of the world.

Part - III (2 X 7=14)

Note: Give detailed answer to any two of the following questions.

Q. 9. Write detailed note on the followings.
   a) Factors effecting rate of enzyme reaction
   b) Types of movement through plasma membrane

Q. 10. a) Draw and explain the carbon cycle
       b) What is mimicry? Give its types supported with suitable examples.

Q.11. Discuss the ways through which ATP is generated in animal cell.