SARDAR PATEL UNIVERSITY  
Programme: BSC (ZOOLGY)  
Semester: IV  
Syllabus with effect from: November 2012  

<table>
<thead>
<tr>
<th>Paper Code: USO4EZOO01</th>
<th>Total Credit: 2</th>
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<tbody>
<tr>
<td>Title Of Paper: Chordates, Physiology, Immunology &amp; Ecology</td>
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<tr>
<th>Unit</th>
<th>Description in detail</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1</td>
<td>Type Study of Shark (Excluding Endoskeleton Arterial system &amp; Venous system)</td>
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| 2    | Human Reproduction: Human male & Female reproductive organs  
Spermatogenesis  
Oogenesis  
Puberty  
Menstrual Cycle  
Fertilization and development |  |
| 3    | Immunology: Fundamental concepts, Innate & Cognate immunity, non specific immune response. Cells of immune system - structure & functions.  
Structure & functions of antibody Classes & subclasses  
Organization & structure of lymphoid organs |  |
| 4    | Ecology & Environmental biology: Ecosystem, Structural components of an ecosystem, Abiotic factors (Brief)  
Temperature as abiotic factor detail (Temp. range, thermal stratification, temp. tolerance, cold blooded and warm blooded animals, Effects of temp. on animals, Adaptations to meet extreme of temp. |  |

**Basic Text & Reference Books:**
- Chordate zoology - R.L. Kotpal
- Chordate zoology - H.C. Nigam
- Chordate zoology - Jordan & Verma
- Textbook of physiology - A.K. berry
- Textbook of physiology - Vermal Aggrawal Tyagi
- Immunology by Qube
- Animals ecology - M.P. Arora
- Ecology - Verma, Agarwal
- Ecology - P.D. Sharma