GUJARAT UNIVERSITY
Semester-3 Zoology

(SKELETON QUESTION PAPER FOR PRACTICAL EXAMINATION)

PAPER-203 (A)
(Based on Theory Paper 201)

Date: …………… Marks: 35 Time: ……………

Q.1 Dissect / Sketch a labeled diagram of the given Earthworm so as to expose
the ___________ system and show it to the examiner.

Q.2 Make a temporary mounting/ Sketch a labeled diagram of _______ from the
Earthworm, stain if necessary and show it to the examiner.

Q.3 Identify specimens 1 to 7 as per instructions:
   Sp. 1 Identify and classify upto Class, giving reasons.
   Sp. 2 Identify and classify upto Class, giving reasons.
   Sp. 3 Identify and describe.
   Sp. 4 Identify, sketch and label.
   Sp. 5 Identify and describe.
   Sp. 6 Identify and comment.
   Sp. 7 Identify and state its uses.

Q.4 Viva voce.

Q.5 Journal.
GUJARAT UNIVERSITY  
Semester-3  Zoology  

( SKELETON QUESTION PAPER FOR PRACTICAL EXAMINATION )

PAPER-203 (B)  
( Based on Theory Paper 202 )

Date: ............. Marks: 35 Time: ...............  

Q.1 Dissect/Sketch a labeled diagram of the given shark so as to expose the____ system and show it to the examiner.  

Q.2 Make a temporary mounting/Sketch a labeled diagram of_____ from the shark, stain if necessary and show it to the examiner.  

Q.3 Demonstrate the action of your own salivary Amylase on the given Starch solution.  

Q.4 Identify specimens 1 to 5 as per instructions:  
   Sp. 1 Identify and classify upto Class, giving reasons.  
   Sp. 2 Identify and classify upto Class, giving reasons.  
   Sp. 3 Identify and comment.  
   Sp. 4 Identify and describe.  
   Sp. 5 Identify, sketch and label.  

Q.5 Viva voce.  

Q.6 Journal.  

GUJARAT UNIVERSITY
4th Semester B.Sc.

ZOOOLOGY
( effective from June 2012 )

The syllabus is to be completed by assigning FOUR hours for each Theory Paper and a total of SIX hours for the Practicals, per week.

Pattern of Examination:
Theory ( Ext. 140 marks & Int. 60 marks)
Practicals ( Ext. 70 marks & Int. 30 marks)

<table>
<thead>
<tr>
<th>Examination</th>
<th>Duration</th>
<th>External Marks</th>
<th>Internal Marks</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory-Paper 204</strong></td>
<td>3 hours</td>
<td>70</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>( Animal diversity ( non-chordates &amp; chordates), Human histology and Physiology )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory-Paper 205</strong></td>
<td>3 hours</td>
<td>70</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>( Animal diversity (chordates), Fishery biology, Human parasitology, Wildlife of India )</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Theory ( Total )</td>
<td></td>
<td>140</td>
<td>60</td>
<td>200</td>
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</tbody>
</table>

| **Practical-Paper 206 (A)** | 3 hours | 35 | 15 | 50 |
| ( Based on Theory Paper – 204 ) | | | | |
| **Practical-Paper 206 (B)** | 3 hours | 35 | 15 | 50 |
| ( Based on Theory Paper – 205 ) | | | | |
| Practicals ( Total ) | | 70 | 30 | 100 |

INSTRUCTIONS

1. Each theory paper comprises of FIVE UNITS. Each UNIT carries equal marks, i.e. 14 marks (14 x 5 = 70) in the university examinations.
2. The question papers will have to be set according to the paper-style and the pattern of marks-distribution provided on page no. 15 & 18 of this syllabus.
3. The paper-style & distribution of marks for each Practical is also provided on page no. 20 & 23 of this syllabus.
4. In order to be qualified to appear in the University Practical Examination, the student must submit his/her duly certified journals during the examination.
ZOOGY SYLLABUS

SEMESTER – 4
PAPER – 204 (Theory)
(ANIMAL DIVERSITY (nonchordates & chordates), HUMAN HISTOLOGY AND PHYSIOLOGY)

Unit I  ANIMAL DIVERSITY (NonChordates) – Systematic:
Salient features and Classification of Invertebrates, starting from Kingdom upto Classes, giving suitable examples (as per practical syllabus):

Phylum:
1. Annelida
2. Arthropoda
3. Mollusca
4. Echinodermata
5. Hemichordata

(Classification, as per adapted in the book – TEXTBOOK OF INVERTEBRATES by R.L.Kotpal, Rastogi Publication, Meerut).

Unit II  ANIMAL DIVERSITY (Nonchordates) – Type Study & General Topics:
A. General structure & morphology with functional anatomy of the following animal:
Arthropoda: Type – Cockroach (Periplaneta americana) – Classification, Habits & Habitat, Ext. characters, Digestive system, Excretory system, Reproductive systems, Nervous system, and Sense organ (only compound eyes).

B. General topics:
1. Metamorphosis (complete & incomplete)
2. Mouth parts of: Honey bee, Housefly, Mosquito (Anopheles & Culex - male & female) and Cockroach.

Reference Books for Units I & II:

Unit III  (A) HUMAN HISTOLOGY:
Histology of lung, bone & cartilage.

(B) HUMAN PHYSIOLOGY:
Body fluids
1) Introduction
2) Significance
3) Compartments
4) Compositions
5) Composition of Cerebrospinal fluid (CSF)
6) Composition of Milk
7) Dehydration
8) Water In-toxification or Over Hydration
Reference Books for Unit III:
2. Essentials of Medical Physiology, K.Sembulingam and Prema Sembulingam, Jaypee publications.

Unit IV: ANIMAL DIVERSITY (Chordates) – General Topics:
Comp. anatomy of vertebrates – Heart and Kidney.

Reference Books for Unit IV:
# Theory Paper-style and pattern of marks-distribution

**PAPER – 204**  
(ANIMAL DIVERSITY (nonchordates & chordates), HUMAN HISTOLOGY)

<table>
<thead>
<tr>
<th>Q. No.</th>
<th>UNIT NO.</th>
<th>MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1.A</td>
<td>Unit-I : 1 and 2</td>
<td>07</td>
</tr>
</tbody>
</table>
| Q.1.B  | Unit-I : 1 and 2  
OR    | Unit-I : 3, 4 and 5 | 07    |
| Q.2.A  | Unit-II : A  
OR    | Unit-II : A | 07    |
| Q.2.B  | Unit-II : B  
OR    | Unit-II : B | 07    |
| Q.3.A  | Unit-III : Lung, bone and cartilage  
OR    | Unit-III : lung, bone and cartilage | 07    |
| Q.3.B  | Unit-III : body fluids  
OR    | Unit-III : body fluids | 07    |
| Q.4.A  | Unit-IV : A  
OR    | Unit-IV : A | 07    |
| Q.4.B  | Unit-IV  
OR    | Unit-IV | 07    |
| Q.5    | 14 objective questions of 1 mark each.  
3 questions from each of the four Units and remaining 2 questions from any of the four Units. | 14    |
GUJARAT UNIVERSITY
Semester-4 Zoology

(SKELETON QUESTION PAPER FOR PRACTICAL EXAMINATION)

PAPER-206 (A)
( Based on Theory Paper 204 )

Date: .............. Marks: 35 Time: ..............

Q.1 Dissect/Sketch a labeled diagram of the given cockroach so as to expose the ________ system and show it to the examiner.

Q.2 Make/Sketch a labeled diagram of a temporary mounting of ___ from the given Cockroach.

Q.3 Make a temporary mounting/Sketch a labeled diagram of the Mouth parts Of _________.

Q.4 Identify specimens 1 to 6 as per instructions:
   Sp.1 Identify and classify upto Class, giving reasons.
   Sp.2 Identify and classify upto Class, giving reasons.
   Sp.3 Identify and describe.
   Sp.4 Identify and describe.
   Sp.5 Identify, sketch and label.
   Sp.6 Identify and comment.

Q.5 Viva voce.

Q.6 Journal.