



UNIVERSITY OF CALCUTTA

Notification No.CSR/05/2024

It is notified for information of all concerned that in terms of the provisions of Section 54 of the Calcutta University Act, 1979, (as amended), and, in the exercise of her powers under 9(6) of the said Act, the Vice-Chancellor has, by an order dated 17.01.2024, approved the following amendments of Zoology of Semester wise UG Courses of studies, as applicable under CCF,2022, under this University, as laid down in the accompanying pamphlet.

1. **New Revised Modalities / Question Pattern & Marks Distribution of Zoology (after incorporating some amendments in the previous notification CSR/51/2023, dt. 29.12.2023)**
2. **New Revised syllabus of IDC paper of Zoology (IDC1, Sem-1, after incorporating some amendments in the previous notification CSR/13/2023, dt. 12.07.2023)**

The above shall take effect from the academic session 2023-2024 and onwards.

SENATE HOUSE

Kolkata-700073

25.01.2024


Prof.(Dr.) Debasis Das

Registrar

Question pattern for Zoology

Under CCF, 2022

All semestersZoology Major Core Papers:

Full marks: 75(Section A + Section B + Section C) = 20+15+40

Time: 3 hours

Examination/Paper type	Section A	Section B	Section B	Comment
Zoology Major Core Theory	<ul style="list-style-type: none"> Total 15 questions will be given by question setters Students will attempt 10 question Questions will be set from all the units Each question will carry 2 marks (10X2)=20 	<ul style="list-style-type: none"> Total 5 short notes to be given by question setters. Students will attempt 3 short notes Short notes can be given from any of the units. No two short notes can be from the same unit Each short notes will carry 5 marks (3X5)=15 	<ul style="list-style-type: none"> Total 7 questions to be given by question setters. Students will attempt 4 questions. Each carrying 10 marks. Questions can be given from any of the units. Each question should have part questions. Each question will carry 10 marks (10X4)=40 	<p>Total marks 20+15+40=75</p> <p>Examination would be taken at away center. Question paper will be arranged by the University.</p> <p>QS, MOD, HE and Examiners will be recommended by UGBOS.</p>
Zoology Major Core Practical	<ul style="list-style-type: none"> Experiments Identifications <p>20 Marks</p>	<p>Lab note book/Field report/Dissertation</p> <p>5 marks</p>	<p>No marks allotted for Viva voce</p>	<p>Total Marks 25</p> <p>Examination should be taken at away center with two internal and one external examiners recommended by UGBOS. Questions will be set by UGBOS</p>

Zoology Major Skill Enhancement Course (SEC) Papers:

Time 2 hours

Multiple Choice Questions

	Section A	Section B		
Zoology Major SEC Theory	Total 30 questions will be set by question setter. Students will attempt 25 questions. Each carrying 1 marks. Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units. 25X1=25	Total 35 questions will be set by question setter. Students will attempt 25 questions. Each question will carry 2 marks. Questions will cover all the units. Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units. 25X2=50	Total marks 75	Answer would be given in OMR sheet. Examination should be taken at away center. QS, MOD, HE and Examiners will be recommended by UGBOS.
Zoology Major SEC Practical	•Experiments •Identifications 20 Marks	Lab note book/Field report/Dissertation 5 marks	No marks allotted for Viva voce	Total Marks 25 Examination should be taken at away center with two internal and one external examiners recommended by UGBOS. Questions will be set by UGBOS

Zoology Minor Core Papers

Full marks: 75 (Section A + Section B + Section C) = 20+15+40

Time: 3 hours

Examination/Paper type	Section A	Section B	Section B	Comment
Zoology Minor Core Theory	<ul style="list-style-type: none"> • Total 15 questions will be given by question setters • Students will attempt 10 question • Questions will be set from all the units • Each question will carry 2 marks (10X2)=20 	<ul style="list-style-type: none"> • Total 5 short notes to be given by question setters. • Students will attempt 3 short notes • Short notes can be given from any of the units. No two short notes can be from the same unit • Each short notes will carry 5 marks (3X5)=15 	<ul style="list-style-type: none"> • Total 7 questions to be given by question setters. • Students will attempt 4 questions. • Each carrying 10 marks. Questions can be given from any of the units. • Each question should have part questions. • Each question will carry 10 marks • (10X4)=40 	<p>Total marks 20+15+40=75</p> <p>Examination would be taken at away center.</p> <p>QS, MOD, HE and Examiners will be recommended by UGBOS.</p>
Zoology minor Core Practical	<ul style="list-style-type: none"> •Experiments •Identifications <p>20 Marks</p>	<p>Lab note book/Field report/Dissertation</p> <p>5 marks</p>	<p>No marks allotted for Viva voce</p>	<p>Total Marks 25</p> <p>Examination should be taken at homecenter with one internal and one external examiners. External examiner will be arranged by the college. Questions will be arranged by UGBOS</p>

Zoology Multi-disciplinary Papers

Examination/Paper type	Section A	Section B	Section B	Comment
Zoology MDC Core Major/ Minor Theory	<ul style="list-style-type: none"> • Total 15 questions will be given by question setters • Students will attempt 10 question • Questions will be set from all the units • Each question will carry 2 marks (10X2)=20 	<ul style="list-style-type: none"> • Total 5 short notes to be given by question setters. • Students will attempt 3 short notes • Short notes can be given from any of the units. No two short notes can be from the same unit • Each short notes will carry 5 marks (3X5)=15 	<ul style="list-style-type: none"> • Total 7 questions to be given by question setters. • Students will attempt 4 questions. • Questions can be given from any of the units. • Each question should have part questions. • Each question will carry 10 marks • (10X4)=40 	<p>Total marks 20+15+40=75</p> <p>Examination would be taken at awaycenter.</p> <p>QS, MOD, HE and Examiners will be recommended by UGBOS.</p>
Zoology MDC Core Practical	<ul style="list-style-type: none"> •Experiments •Identifications <p>20 Marks</p>	<p>Lab note book/Field report/Dissertation</p> <p>5 marks</p>	<p>No marks allotted for Viva voce</p>	<p>Total Marks 25</p> <p>Examination should be taken at homecenter with one internal and one external examiners. External Examiner will be arranged by the college. Question format will be provided by UGBOS</p>

	Section A	Section B		
Zoology MDC SEC Theory	<p>Total 30 questions will be set by question setter.</p> <p>Students will attempt 25 questions. Each carrying 1 marks.</p> <p>Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units.</p> <p>25X1=25</p>	<p>Total 35 questions will be set by question setter.</p> <p>Students will attempt 25 questions.</p> <p>Each question will carry 2 marks. Questions will cover all the units. Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units.</p> <p>25X2=50</p>	Total marks 75	<p>Questions would be set by internal teachers</p> <p>Students will write only the correct alternative against the question number.</p> <p>Examination should be taken at homecenter.</p> <p>Questions will be arranged by college teachers.</p>
Zoology MDC SEC Practical	<ul style="list-style-type: none"> •Experiments •Identifications <p>20 Marks</p>	<p>Lab note book/Field report/Dissertation</p> <p>5 marks</p>	No marks allotted for Viva voce	<p>Total Marks 25</p> <p>Examination should be taken at homecenter with one internal and one external examiners. External examiners will be arranged by the college. Question format will be given by UGBOS</p>

Zoology Interdisciplinary course (IDC)

	Section A	Section B		
Zoology IDC Theory	<p>Total 30 questions will be set by question setter. Students will attempt 25 questions. Each carrying 1 marks. Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units. 25X1=25</p>	<p>Total 30 questions will be set by question setter. Students will attempt 25 questions. Each question will carry 1 marks. Questions will cover all the units. Questions should be MCQ with four alternative options with no negative alternative. Questions will cover all the units. 25X1=50</p>	Total marks 50	<p>Questions would be set by internal teachers. Students will write only the correct alternative against the question number. Examination should be taken at home center. Questions will be arranged by college teachers.</p>
Zoology IDC Practical	<ul style="list-style-type: none"> •Experiments •Identifications <p>20 Marks</p>	<p>Lab note book/Field report/Dissertation</p> <p>5 marks</p>	No marks allotted for Viva voce	<p>Total Marks 25 Examination should be taken at homecenter with two internal examiners as recommended by HOD of respective college. Question format will be given by UGBOS.</p>

Amendment in IDC paper of Zoology Syllabus (CSR/13/2023, dt. 12.7.2023) under CCF

The University will offer Zoology related IDC as the Paper of Animal Science which will be selected by Students pursuing Major and Minor Courses other than Zoology

PART I: SEMESTER 1**IDC-1: Animal Biology****IDC-1-TH**

Full Marks 50	3 Credits	50 Hours
Unit 1: Animal Diversity		10
Phylum Characters and example: [Non-chordates-Porifera, Cnidaria, Ctenophora, Platyhelminthes, Nematelminthes, Annelida, Arthropoda, Mollusca and Echinodermata]; Chordata		
Unit 2: Genetics		12
1. Mendelian Principles and Laws of inheritance 2. Linkage and Recombination basic Concepts 3. Sex Determination with reference to <i>Drosophila</i> [only genic balance theory] 4. Chromosomal Aberration [Structural and Numerical]		
Unit 3: Biodiversity and Wildlife		15
1. Biodiversity: Definition, types and value 2. Biodiversity: Indices [Shannon & Simpson] 3. Conservation: <i>in situ</i> and <i>ex situ</i> [outline idea] 4. Conservation Priority: Hotspot, Megadiversity, Sensitive Ecosystem 5. Indigenous Knowledge and PBR: Basic Concepts		
Unit 4: Insect Vectors		8
1. Concept of Vector: Biological and Mechanical Vectors with examples 2. Disease cycle & Reservoir Concept 3. Major Vectors: Mosquito (<i>Anopheles</i> sp. & <i>Aedes</i> sp.) Life cycle, control, role as vector.		
Unit 5: Laboratory techniques and Instrumentation		5
1. Basics of Light Microscopy 2. Principles and Application of Colorimetry 3. Principles and application of Ultracentrifugation		

Animal Biology Lab: IDC-1-P

Full Marks 25	1 Credit	20 Hours
List of Practical		
1. Karyotype analysis of Klinefelter, Down, Turner, Edward & Patau Syndrome 2. Identification (Phylum and specimen characters): <i>Amoeba</i> , <i>Paramecium</i> , <i>Sycon</i> , <i>Neptune's Cup</i> , <i>Taenia</i> , <i>Ascaris</i> , <i>Nereis</i> , <i>Pheretima</i> , <i>Pila</i> , <i>Lamelledens</i> , <i>Penaeus</i> , <i>Macrobrachium</i> , <i>Musca</i> , <i>Anopheles</i> , <i>Culex</i> , <i>Asterias</i> . 3. One Local-Outdoor Trip for Biodiversity Studies.		