

Department of Higher education, Govt. of M.P.
Semester wise Syllabus for Undergraduates
As recommended by Central board of Studies and
Approved by HE the Governor of M.P.
Session 2008-09

B.Sc. - I
ZOOLOGY
SEMESTER-I
PAPER I
INVERTEBRATES

M.M.- 50

Unit: I Period : 10

Classification of Non chordates upto order according to parker and Haswell.7th Edition.

1. Classification of lower invertebrates
2. Classification of higher invertebrates

Unit: II Period : 8

1. Protozoa - Type study of Plasmodium.
2. Porifera - Type study of Sycon.

Unit: III Period : 8

1. Coelenterata - Type study of Obelia.
2. Helminthes - Type study of Liver fluke.

Unit: IV Period : 9

1. Annelida - Type study of Nereis, Metamerism, Trochophore Larva.
2. Arthropoda - Type study of Prawn.

Unit: V Period : 10

1. Mollusca -Type study of Pila.
2. Echinodermata - External features of Star fish and Echinoderm larvae.

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B.Sc I
Semester I
Paper II
Vertebrates

MM . 50

Unit – 1. Period : 8
1. Origin of chordates. Classification of phylum Chordata upto orders according to Parkar and Haswell (Latest edition)

2. Hemicordata – External features and affinities of Balangosus.

Unit – II Period : 9

1. Urochordata – type study of Herdmania (Excluding Development)

2. Cephalochordata – Type study of amphioxus. Affinities of Amphioxus.

Unit - III Period : 9

1. Petromyzon – External Feature

2. Comparison between petromyzon and Myxine.

3. Comparative anatomy of integumentary system of vertebrates (fish, Amphibia, Reptiles, Birds and Mammals)

Unit – IV Period : 9

Comparative anatomy of vertebrates (Fish, Amphibia, Reptiles, birds and mammals)

1. Skeletal system – Girdles only.

2. Digestive system.

3. Respiratory system.

Unit – V Period : 10

Comparative anatomy of vertebrates (Fish, Amphibia, Reptiles, birds and mammals)

1. Circulatory system – heart and Aortic arches only.

2. Nervous system – Brain only

3. Urinogenital system

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B.Sc I
Zoology
Semester I (Practical - I)
Scheme of practical Examination

Time : 3 hours

MM. 50

Practical	Marks Allotted
1. Major Dissection	10
2. Minor Dissection	5
3. Mounting	5
4. Spotting (Representative of Each phylum)	10
5. Viva	10
6. Record & Collection	<u>10</u>
Total	50

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Semester I
Practical I

The Practical's work will be based on theory syllabus and the candidates will be required to show knowledge of the following –

1. Study of Museum Specimens relevant to the type study in theory
2. Mounting (Temporary)
 - a. Mouth parts of insects
 - b. Statocyst of Prawn
 - c. Ctenidium and Osphradium of Pila
 - d. Scales of Teleost fish
 - e. Mounting Material
3. Major Dissection
 - a. Earthworm digestive system, nervous system and reproductive system
 - b. Cockroach : Digestive system, Nervous system
 - c. Prawn – Nervous system, Appendages.
 - d. Pila - Nervous system
4. Minor Dissection
 - a. Hastate plate and appendages of Prawn
 - b. Salivary Glands of Cockroach
 - c. Radula of Pila

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B.Sc I

Zoology

Semester I

Project Work

MM. 50

- a. Collection & Identification of Protozoans
- b. Collection & Identification of Porifera & coelenterates.
- c. Collection & Identification of Platyhelminthes & Nematelminthes.
- d. Collection & Identification of Annelides.
- e. Collection & Identification of Arthropods.
- f. Collection & Identification of Molluscs
- g. Collection & Identification of Fishes of economic importance.
- h. Life cycle of Honey bee.
- i. Life cycle of Silk moth.
- j. Life cycle of Butterfly.

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MM. 50

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Unit – 1.
Origin of chordates. Classification of phylum

Period : 8