

**GOVT. D. B. GIRLS PG COLLEGE,
RAIPUR**

CHHATTISGAH

Affiliated

With

PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR

**SYLLABUS
2020-21**

**UNIFIED SYLLABUS
FOR CHHATTISGARH UNIVERSITIES
SESSION
2020 – 2021, 2021 – 2022, 2022 - 2023
B.Sc. I, II, & III YEAR**

Several handwritten signatures in blue ink are located at the bottom of the page. There are approximately five distinct signatures, some appearing to be initials or names, written in a cursive style.

B.Sc. II, ZOOLOGY (2020-2021)
Paper: I
ANATOMY AND PHYSIOLOGY
(Paper code-0863)
M.M. 50

Comparative Anatomy of various organ systems of vertebrates:

Unit: I

1. Integument and its derivatives: structure of scales, hair and feathers
2. Alimentary canal and digestive glands in vertebrates
3. Respiratory organs : Gills and lung , air-sac in birds

Unit: II

1. Endoskeleton: (a) Axial Skeleton – Skull and Vertebrae (b) Appendicular Skeleton - Limbs and girdles
2. Circulatory System: Evolution of heart and aortic arches
3. Urinogenital System: Kidney and excretory ducts

Unit: III

1. Nervous System: General plan of brain and spinal cord
2. Ear and Eye: structure and function
3. Gonads and genital ducts

Unit: IV

1. Digestion and absorption of dietary components
2. Physiology of heart, cardiac cycle and ECG
3. Blood Coagulation
4. Respiration: mechanism and control of breathing

Unit: V

1. Excretion: Physiology of excretion, osmoregulation
2. Physiology of muscle contraction
3. Physiology of nerve impulse, Synaptic transmission

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B.Sc. II, ZOOLOGY (2020-2021)
Paper: II
VERTEBRATE ENDOCRINOLOGY, REPRODUCTIVE BIOLOGY
BEHAVIOUR, EVOLUTION AND APPLIED ZOOLOGY
(Paper code- 0864)
M.M. 50

Unit: I

1. General Characters of Hormones
2. Hormone receptor
3. Biosynthesis and secretion of thyroid, adrenal, ovarian and testicular hormones
4. Endocrine disorder due to hormones and other glands

Unit:II

1. Reproductive cycle in vertebrates
2. Menstruation, lactation and pregnancy
3. Mechanism of parturition
4. Hormonal regulation of gametogenesis
5. Extra-embryonic membrane

Unit: III

1. Evidences of organic evolution.
2. Theories of organic evolution.
3. Variation, Mutation, Isolation and Natural selection.
4. Evolution of Horse

Unit:IV

1. Introduction to Ethology.
2. Patterns of Behaviour: Taxes, Reflexes, Drives and Stereotyped behaviours.
3. Reproductive behavioural patterns.
4. Hormones, drugs and behaviour

Unit:V

1. Aquaculture
2. Sericulture
3. Apiculture
4. Pisciculture
5. Poultry keeping
6. Elements of pest control-
 1. Chemical control
 2. Biological control

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B.Sc. II, ZOOLOGY (2020-2021)
PRACTICAL WORK
M.M. 50

The practical work in general shall be based on the syllabus prescribed and the students will be required to show the knowledge of the following:

1. Study of the representative examples of the different chordates (Classified characters).
2. Alternate methods of dissection of various systems of scoliodon-Afferent and Efferent branchial arteries, cranial nerves, internal ear.
3. Simple microscopic technique through unstained or stained permanent mount.
4. Study of prepared slides histological, as per theory papers.
5. Study of limb girdles and vertebrae of frog, varanus, fowl and rabbit.
6. Identification of species and individual of honey bee.
7. Life cycle of honey bee and silkworm.

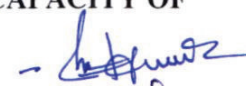
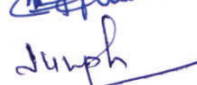



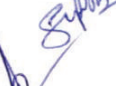

Scheme of Practical Exam

Time: 3:30hrs

1. Alternate methods of Major dissection (Cranial nerves/efferent branchial vessel)	12
2. Alternate methods of Minor dissection (Afferent branchial /internal ear)	08
3. Permanent mount.	04
4. Spotting-8 (slides-4,bones-2,specimen-2)	16
5. Viva	05
6. Sessional marks.	05

TOTAL PRACTICAL MARKS 50

APPROVED BY THE BOARD OF STUDIES

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Ms (CR) M.Sc. III sem.	Member	