



RANI CHANNAMMA UNIVERSITY

BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

ZOOLOGY

1ST TO 6TH Semesters

w.e.f.

**Academic Year 2020-21 and Onwards
Under**

CHOICE BASED CREDIT SYSTEM (CBCS)



First Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 1.1
Teaching Hours: 4 H / Week
Total hours:60

Paper Title: Animal Diversity
Marks: Th-80+IA-20
Credits :3

UNIT – 1

15 Hours

Kingdom Protista: General characters and classification up to classes with one example for each class. locomotion in Protozoa

Phylum Porifera: General characters and classification up to classes with one example for each class. Canal System in *Sycon*

Phylum Cnidaria: General characters and classification up to classes with one example for each class. Polymorphism

Phylum Platyhelminthes: General characters and classification up to classes with one example for each class. Parasitic adaptations

Phylum Nemathelminthes: General characters and classification up to classes with one example for each class. Life history of *Ascaris*. Parasitic adaptations in roundworms

UNIT – 2

15 Hours

Phylum Annelida: General characters and classification up to classes with one example for each class. Metamerism in Annelida

Phylum Arthropoda: General characters and classification up to classes with one example for each class. Metamorphosis in Insects

Phylum Mollusca: General characters and classification up to classes with one example for each class. Torsion in gastropods

Phylum Echinodermata: General characters and classification up to classes with one example for each class. Water-vascular system in Asteroidea

UNIT – 3

15 hours

Phylum Chordata: Characters of chordates. Differences between chordates and non-chordates. General features of Protochordata (Brief note on Hemichordata, Urochordata, Cephalochordata)

Agnatha and Gnathostomata: General features of Agnatha and Gnathostomata. Classification of cyclostomes up to classes

Pisces: General features and classification up to living orders. Scales in fishes Migration in Fishes



Amphibia: General features and classification up to living orders. Parental care in amphibians

Reptiles: General features and Classification up to living orders. Differences between poisonous and non-poisonous snakes. Snake bite and treatment

UNIT – 4

15 Hours

Aves: General features. Salient features of Passeriformes, Pisciformes, Columbiformes,

Mammals: General characters. Salient features of Monotremes, Marsupialia, Insectivora, Rodentia, Perissodactyla, Chirpotera, Edentata, Cetaceae and Primates with one example for each. Ear ossicles in mammals.

Suggested Readings:

1. Agarwal V. P. and Dalela R. C. (1975): Textbook of Vertebrate Zoology. Jai Prakashnath Co.
2. Barnes, R.D. (1982): Invertebrate Zoology. Fifth edition
3. Barnes, R.D. (1982): Vertebrate Zoology. Fifth edition
4. Barnes, R.S.K., Calow, P., Olive, P.J.W. Golding, D.W. and Spicer, J.I. (2002): The Invertebrates: A
5. New Synthesis, III Edition, Blackwell Science
6. Barrington E. J. W. (1981): Invertebrate structure and Function. ELBS. Dhama P.S. and Dhama J. K.
7. (2000): Chordate Zoology. S. Chand & Co. Dhama P.S. and Dhama J. K. (2000): Invertebrate Zoology. S. Chand & Co.
8. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. I. Invertebrata (Part 1 &2). S. Vishwanathan Pvt. Ltd.
9. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. II. Chordata S. Vishwanathan Pvt. Ltd.
10. Jordan E. L. and Verma P.S. (1976): Chordate Zoology. S. Chand & Co. Jordan E. L. and Verma
11. P.S. (1976): Invertebrate Zoology. S. Chand & Co.
12. Kotpal R. L. (1993): Protozoa- Echinodermata (all volumes). Rastogi Publ. Pough H (2004): Vertebrate life, VIII Edition, Pearson International.
13. Ruppert and Barnes, R.D. (2006): Invertebrate Zoology, VIII Edition. Holt Saunders International Edition.



First Semester B.Sc. (Zoology)

Paper Code: ZOODSCP 1.1
Teaching Hours: 3 H / Week
Total hours: 45

Paper Title: Practicals-I
Marks: Th-40+IA-10
Credits :1

ZOODSC P11-PRACTICAL-I

1. Study of the following specimens making use of permanent slides / specimens:

- i. Study of unicellular and cellular grade organized animals: *Amoeba*, *Euglena*, *Paramecium* and *Sycon*
 - ii. Study of tissue grade organized animals: *Obelia*, *Physalia*, *Aurelia*, *Metridium*, Study of flat worms: *Planaria*, *Taenia solium*
 - iii. Study of round worms: Male and female *Ascaris lumbricoides*
 - iv. Study of segmented Animals: *Nereis*, *Pheretima*, *Hirudinaria*,
 - v. Study of animal forms with jointed appendages: *Palaemon*, *Cancer*, *Limulus*, *Apis*,
 - vi. Study of soft bodied animals: *Chiton*, *Dentalium*, *Pila*, *Unio*, *Loligo*, *Sepia*,
 - vii. Study of spiny skinned animals: *Pentaceros*, *Ophiura*, *Echinus*, *Cucumaria* and *Antedon*
 - viii. Study of Protochordates: *Balanoglossus*, *Herdmania*, *Branchiostoma*
 - ix. Study of Fishes: *Torpedo*, *Labeo*, *Exocoetus*, *Anguilla*
 - x. Study of Amphibians: *Ichthyophis*, *Salamandra*, *Bufo*, *Hyla*
 - xi. Study of Reptiles: *Chelone*, *Chamaeleon*, *Draco*, *Vipera*, *Naja*
 - xii. Study of Birds: *Duck*, *Cuckoo*, *Wood pecker*, *Kingfisher*, *Owl*, *Peacock*
 - xiii. Study of Mammals: *Duck billed platypus*, *Manis*, *Bat*, *Loris*
2. Mounting of setae, blood glands, nephridia in Earthworm
(Collect the dead worms from vermicompost pits of farmers and preserve)
3. Mounting of mouth parts of honeybee, cockroach, housefly, mosquitoes
4. Mounting of brain in fowl / rat (collect dead fowl / rat heads and preserve)
5. Study tour / field visit: Compulsory tour / visit to understand faunal diversity

SUGGESTED READINGS

1. Ruppert and Barnes, R.D. (2006): Invertebrate Zoology, VIII Edition. Holt Saunders International Edition.
2. Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002): *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
3. Young, J. Z. (2004): *The Life of Vertebrates*. III Edition. Oxford university press.
4. Pough H (2006): *Vertebrate life*, VIII Edition, Pearson International.
5. Hall B.K. and Hallgrimsson B. (2008): Strickberger's Evolution. IV Edition. Jones and Bartlett Publishers Inc.
6. P. S. Dhami and J. K Dhami (2000): Practical Zoology S. Chand and Co, New Delhi





K.L.E. Society's

G.I. Bagewadi Arts, Science, Commerce and PG College, Nipani-591237

Re-accredited at 'A' level by NAAC with CGPA 3.35

Affiliated to Rani Channamma University, Belagavi, Karnataka, India

Website: WWW.Klegibnpn.edu.in E-mail: klegibnpn@yahoo.co.in Ph: 08338-220116

Ref. No.: GIB/

Date: 08/02/2021

DEPARTMENT OF ZOOLOGY

Field Visit – Study of Faunal Diversity in GIB College Campus

To,
The Principal
K.L.E. Society's
G.I. Bagewadi College, Nipani

Respected sir,

As a part of curriculum we have arranged one day field visit at G.I. Bagewadi College Campus, Nipani on 09/02/2021 at early morning 6.30am for the study of faunal diversity for B.Sc. I Sem students. 29 students have enrolled their names. Miss. S. M. Hegade will be accompanying the students. This is for your kind information.

Thanking you Sir,

Head of Department
Department of Zoology
G.I. Bagewadi College, Nipani

Principal
PRINCIPAL
G.I. Bagewadi Arts, Science &
Commerce College, NIPANI

DEPARTMENT OF ZOOLOGY

Study of Faunal Diversity in GIB College Campus(Field Visit)

2020-21		B.Sc I Sem	
Sl.No	Roll.No	Name of the student	Sign
1	1	Abhinandan Khade	Khade
2	2	Adarsha Patil	Patil
3	3	Aishwarya Omprakash	Aishwarya
4	4	Akanksha Yadav	Akanksha
5	5	Akshata Doddamani	A. Doddamani
6	6	Damini Rathor	Rathor
7	7	Deeksha Patil	Deeksha.P
8	8	Harsha Kante	Kante
9	9	Keerti Chawadi	Chawadi
10	10	Lakhan Mali	Mali
11	11	Marzia Maniyar	Maniyar
12	12	Mayuri Kachare	Kachare
13	13	Nihal Jamadar	Jamadar
14	14	Nikita Ghatage	Ghatage
15	16	Pooja Budake	Budake
16	17	Prajwal Naregol	Naregol
17	18	Rajendra Hirematha	Hirematha
18	19	Ratnakar Balikar	Balikar
19	20	Rushikesh Shendure	Shendure
20	21	Sayali Shandage	Shandage
21	22	Shivashankar Patil	Patil
22	24	Shraddha Magadam	Magadam
23	25	Sneha Kadalagi	Kadalagi
24	26	Supriya Dhale	Dhale
25	27	Tejas Asode	Asode
26	28	Uddav Salunke	Salunke
27	29	Vaishnavi Kotiwale	Kotiwale
28	30	Vishaka Burud	Burud
29	31	Yogita Jadhav	Jadhav

hls
Department of Zoology
G. L. Bagewadi College, Nipani.







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Ref. No.: GIB/

Date: 09/02/2021

Report on - "Study of Faunal Diversity"

Name of the Department	Zoology
Name of the Event Organized	Field visit
Title of the Event	"Study of Faunal Diversity"
Date of the Event Organized	09/02/2021
Class	B.Sc. I Sem
Field visit location	G.I.B. College Campus Nipani
Name of the Convener	Dr. Smt. V. R. Naik, Associate Prof.
Participants	30
No. of Participants	Total 30 Teachers 01 Students 29
Name of the Expert with Designation	Smt. S. M. Hegade, Assistant Prof.
Contact Number & Address of the Expert	9008396800. A/P-Nipani. Tal-Chikodi, Dist-Belagavi
Objectives of the Event	To study different types of fauna in our college campus.
Outcome of the Event	1. Students saw the different types of aves, reptiles, mammals and insects in GIB College Campus Nipani. 2. Students learnt how the animals in nature will self defends by the predators.
Photo Gallery	
	
Students at GIB College Campus to study faunal diversity.	Kingfisher bird.

[Signature]

HOD

Department of Zoology
G. I. Bagewadi College, Nipani.

[Signature]

IQAC Coordinator
Co-ordinator IQAC
K. L. E. Society's
G. I. Bagewadi College, Nipani.

[Signature]

PRINCIPAL
PRINCIPAL
G. I. Bagewadi Arts, Science &
Commerce College, NIPANI.

11.ZOOLOGY (Optional)

**B.Sc IV Semester Scheme (CBSC - Pattern)
Zooology (Optional) Syllabus(Revised)
2018 -19 Onwards**

Semesters	Syllabus	Total Hours	Theory & Practical/ Week
IV	Cell Biology, Histology & Animal Behaviors	50hrs.	4 hrs.
	PRACTICAL	12	4 hrs.

NOTE:

THEORY MARKS			PRACTICAL MARKS		
Internal	Annual	Total Marks	Internal	Annual	Total Marks
20	80	100 marks	10	40	50 marks

Question paper pattern for THEORY examination

Que.No.	Marks	Solve	Total Marks
I	02	10	20
II	04	05	20
III	10	04	40
TOTAL --- 80 MARKS			

PRACTICAL pattern for examination

Que.No.	Solve	Total Marks
I	Make a temporary preparation of Histology slide.	10
II	Make a temporary squash preparation of Onion root tip/ Grasshopper Testis/ Onion flower bud	08
III	Identification (6X2)	12
IV	Field study report & viva	05
V	Journal	05
TOTAL --- 40 MARKS		

**B.Sc IV Semester Syllabus Revised (2018-19) Onwards
ZOOLOGY (Optional)**

Total Marks--80

Total Teaching--50hrs.

Cell Biology, Histology & Animal Behaviors



UNIT-I Cell Biology

Cell Biology: Ultra structure of animal cell, Cell theory & cell cycle.	1hr
Ultra Structure & function of cell organelles: Plasma membrane, Endoplasmic reticulum, Ribosome's, Golgi-complex, Lysosomes, Mitochondria and Nucleus.	8hrs

UNIT-II Cell Biology

Chromosomes: Structure & types of chromosomes. Ultra structure of chromosome.	2hrs
Cell division: Types- mitosis & meiosis.	2hrs
Cellular Aging & Cell Death: Concept of Aging theories, Effect of Aging on Cell organelles. Apoptosis, Necrosis-Definition & significance.	2hrs
Cancer Biology: Introduction, Characteristics of cancer cells. Carcinogens, cause & prevention.	3hrs

UNIT-III Histology

Histo chemical Techniques: Cytoplasmic & Nuclear stains. Preparation of histological slides.	3hrs
A).Study of histological structure and functions of the following Mammalian organs.	8hrs
a). Tongue	b). Salivary glands
c). Stomach	d). Intestine
e). Liver	f). Kidney

UNIT-IV Histology

B). Study of histological structure and Endocrine functions of the following Mammalian organs	9hrs		
a) Pituitary	b) Pancreas	c) Adrenal	d) Thyroid
e) Parathyroid	f) Thymus	g) Testes	h) Ovary

UNIT-V Ethology (Animal Behaviour)

Ethology: Introduction Definition, Scope of ethology. Brief Contributions of Konard Lorenz, NikoTinbergen and Karl Von Frisch.	2hrs
Types of Animal Behaviour:	7hrs
1). Innate Behaviour: Taxes, Reflexes, Instincts & Motivation.	
2). Learned Behaviour: Habituation, Imprinting, Conditioned, Reflexes and Insight learning.	
3). Social behaviour: Types of animal society & Colony in Honey Bees and Monkey troops.	
4). Territoriality & Courtship Behaviour in Scorpion, Stickle Back Fish & Peacock.	
5). Study of nesting behavior and mimicry in animal.	
6). Biological clock, Circadian rhythm and Chronobiology.	
Animal Communication: Chemical, visual and Audio. Function of	



Signals odours, sounds and light.	2hrs
Parental care: Concepts, Fishes, Amphibians and Birds.	3hrs

PRACTICALS

	Total Practicals-12 hr
1) Study of permanent cytology slides of Mitosis & Meiosis.	2hrs
2) Study of temporary preparation of Mitotic stages from onion Root tip cells.	2hrs
3) Study of temporary preparation of Meiotic stages from onion Flower bud/Grass Hooper testis.	2hrs
4) Preparation and observation of permanent histological slides Stomach, Intestine, Liver, Pancreas, Kidney, Adrenal Thyroid, Testis & Ovary.	4hrs
5) Study of mimicry in leaf insect, Chameleon, Butterflies, Stick Insect, Ants, Wasps and Spiders.	1hr
6) Study of Nest and nesting material.	1hr
7) Internal Practical Test	1hr

NOTE:

1. With the help of Charts/Models/Diagrams/Printouts & Xerox Sheets are used in practical demonstration
2. Compulsory field visit to study Mimicry, Habitats and Community.
3. Submission of field visit report carries 5 marks.

REFERENCE BOOKS

1. Introduction to Histology. Gauba R.K. Tata Mc Graw Hill New Delhi.
2. Cells and Tissues: Introduction to Histology ND Cells :Rogers:A.W. Academic Press .
3. Basic medical Histology :Biology of cells & tissues & organs Kessel R.G. oupNew York.
4. Text Book of Histology :Bloom and Fawcett.Saunders Publ.Philadelphia.
5. Bailey's Text Book of Histology.Bailee Baltimore,Willims andWilkins.
6. Text Book of Ecology : Odum.
7. Introduction to animal behavior:Aubrey Manning and Marian.S.DawkinsCambridge Uni Press.
- 8.Essentials of organizational behavior:Stephan Robbins,Prentice Hall of IndiaNew Delhi.
9. Animal Behaviour :McFarland D ELBS with Longman.
10. Ethology " Barnett.
11. An introduction to Behavioural Ecology J.R. Krebs & N.B. Davies Black wellScientific Publ.
12. Text Book of Animal Behaviour: Fatik Baran mandal. PHI Learning Pvt Ltd newDelhi.
13. Animal Behaviour :Reena Mathur,Rastogi and Coimpani.
14. Cell Biology -Chennarayappa - Unniversity Press



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Website: WWW.Klegibnnpn.edu.in E-mail: klegib_npn@yahoo.co.in Ph: 08338-220116

Ref. No.: GIB/

Date: 19/08/2021

DEPARTMENT OF ZOOLOGY

Field Visit – Study of Mimicry, Habitat and Community

To,

The Principal

K.L.E. Society's

G.I. Bagewadi College, Nipani

Respected sir,

As a part of curriculum we have arranged one day field visit at Budalmukh, Nipani on 20/08/2021 for the study of Mimicry, Habitat and community in animals for B.Sc. IV Sem students. 40 students have enrolled their names. Smt. A. S. Mangavate and Smt. S. S. Sunnal will be accompanying the students. This is for your kind information.

Thanking you Sir,

Head

Department of Zoology

HEAD

Department of Zoology

G. I. Bagewadi College, Nipani.

Principal

PRINCIPAL

G.I. Bagewadi Arts, Science &
Commerce College, NIPANI.



KLE Society's
**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE
COLLEGE,**
NIPANI - 591 237

(Accredited at 'A' with 3.35 CGPA in 3rd Cycle by NAAC)
College with Potential for Excellence (CPE)

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Ph.: 08338-220116

Ref. No.: GIB/

Date: 20.08.2021

DEPARTMENT OF ZOOLOGY

**Field Visit – Study of Mimicry, Habitat and Community
List of Students**

Sl.No	Name of the Student	Sign
01	Miss.Akaknsha.G.Badadatti	Badadatti
02	Mr.Abhishek Ambi	Abhi
03	Mr.Aditya Siddannavar	Siddannavar
04	Miss.Aishwarya Patil	Patil
05	Miss.Akshata Hirekudi	Akshata
06	Mr.Anil Shendre	Anil
07	Miss.Ankita N.Patil	Patil
08	Miss.Anvita Kurbet	Anvita
09	Miss.Ashwini Sutar	Ashwini
10	Miss.Gayatri Chavan	Chavan
11	Mr.Imran Pinjari	Imran
12	Mr.Kiran Walaki	Kiran
13	Miss.Laxmi Patil	Patil
14	Miss.Nikita Arage	N. Arage
15	Miss.Nikita Chougale	Chougale
16	Miss.Nooresaba Momin	Momin
17	Miss.Padmaja Doddannavar	Padmaja
18	Miss.Pallavi Chougale	Chougale
19	Miss.Pallavi Kurani	Kurani
20	Miss.Pradnya Ingale	Ingale
21	Mr.Prajwal Kothiwale	P. Kothiwale
22	Mr.Pratik Shashtri	Shashtri
23	Miss.Pratiksha Kumbar	Kumbar
24	Mr.Pritam Chougale	Chougale
25	Mr.Rahul Patil	Patil
26	Mr.Rajshekhar Mathapati	Mathapati
27	Mr.Rayanna Chikodi	Chikodi
28	Miss.Ritu Patil	Patil
29	Miss.Rohini Jadhav	Jadhav
30	Miss.Rutuja Nare	R. Nare
31	Mr.Satwik Desai	Satwik
32	Mr.Shekhar Shendre	Shendre



33	Mr. Shital Patil	Patil
34	Miss. Shruti Solapure	Shruti
35	Miss. Shweta Jadhav	Jadhav
36	Miss. Snehal Shinde	Snehal . S
37	Mr. Somesh Mali	Somesh. Mali
38	Mr. Sourabh Kenawade	Sourabh. Kenawade
39	Miss. Subhodana Kamble	Subhodana
40	Miss. Sufiya Nayagar	S. Nayagar
41	Mr. Sushant Patil	Sushant. P
42	Mr. Tushar Patil	TP
43	Miss. Vinashree Kole	V. Kole
44	Mr. Vinaykumar Patil	V. Patil
45	Miss. Zeba Bagalkoti	Zeba
46	Mr. Rushikesh Patil	R. Patil

Patil

HOD

Department of Zoology
G. L. Bagewadi College, Nipani





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Ref. No.: GIB/

Date: 20/08/2021

Report on: Study of Mimicry, Habitat, and Community in Animals

Name of the Department	Zoology
Name of the Event Organized	Field Visit
Title of the Event	Study of mimicry, Habitat and Community
Date of the Event Organized	20.08.2021
Class	B.Sc. IV Sem
Field visit location	Budalmukh (Nipani)
Name of the Convener	Smt. Amruta Mangavate
Participants	48
No. of Participants	Total 48 Teachers 01 Students 46
Name of the Expert with Designation	Smt. Amruta Mangavate Assistant prof.
Contact Number & Address of the Expert	7204525359
Objectives of the Event	Mimicry involves different species and functions to protect from predators.
Outcome of the Event	1. Makes as anti-predator adaptation. 2. Students got knowledge about how the animals make different mimicry by changing their colors. 3. Students learnt about how the animals will protect themselves from predator by making mimicry
Photo Gallery	
	
Study of mimicry habitat and community. At Budalmukha	Mimicry of Butterfly


HOD

Department of Zoology
G. I. Bagewadi College, Nipani


IQAC-Coordinator

Co-ordinator IQAC
K. L. E. Society's
G. I. Bagewadi College, Nipani.


PRINCIPAL
PRINCIPAL

G.I. Bagewadi Arts, Science &
Commerce College, NIPANI.

B Sc V Semester (5.1)
Paper-I
ZOOLOGY (optional)

(Ecology, Evolution, Paleontology, Zoogeography, Wild life Conservation)

Total-hours,50

Marks-80

Ecology.

Earth as Living.-Planet. Sub divisions of ecology, Scope of ecology, Biosphere 1 hr

Abiotic factors _____
Light, Temperature (Effect on Animals and Plants) 2hr

Biotic Factor

Mutualism, Commensalism, Amensalism, Parasitism, Predation

Competition, Parasitism. 2hrs

Habitats

4hrs

Freshwater habitat — Lotic and Lentic systems
Zonation of Sea, Marine Biota, Estuarine ecology, & Mangrooves
Terrestrial habitat — A brief account of Biomes.

Ecological Adaptations — Freshwater, Marine and Terrestrial.

Biogeochemical Cycles - Principles and concepts of Water, Nitrogen, Carbon, Oxygen cycles 2hrs

Community Ecology-Community structure, Ecological niches, Edge effect, Stratification, Ecoton.

2hrs

Population Ecology: Density, natallity, mortality, Age distribution

Population growth, types and curves. 2hrs



Evolution.

The Solar System
Origin of Earth, Origin of Life and its theories

03hrs

The geological time scale

03hrs

Fossils: Definition and Kinds of fossils, How fossils are formed, Methods of Preservation. Connecting links and Living fossils. The importance of fossils

02hrs

Theories of Organic Evolution :

06hrs

Lamarckism, Darwinism, Mutation Theory
And the Modern Synthesis Theory; (population gene Pool, Gene Frequency . Variations — gene mutation, chromosomal mutation; Isolation and recombination. Genetic drift, Hardy-Weinberg equilibrium)

Modes of Evolution : Microevolution, Macroevolution and Mega-evolution.

02 hrs

Evolution of Man and Horse

04 hrs

Paleontology

Mesozoic reptiles with a note on Dinosaurs.

03 hrs

Zoogeography: Zoogeographical realms of world ,
A brief account of Wallace's line

03 hrs

Wildlife Conservation :

09hrs

Wildlife in India, Causes for the depletion of wildlife.

Wild Life Conservation Techniques, methods and measures

Brief account of ; IUCN, WWF, Bombay Natural History Society,

Indian Board for Wild Life, Red Data Book.

Wild Life Act 1972 and its amendments in India, CITES.

Project Tiger and Biosphere Reserve.



Total -11 Practicals

1. Study of fossils (vertebrate(3) and invertebrate(3))
1hrs
2. Mesozoic reptiles (Ichthyosaur, tyrannosaur, brontosaur, triceratops, archaeopteryx)
1hr
3. Evolution of man (Homo-erectus, Homo-habills, Homo-neandertalences)
1hr
4. Evolution of Horse
1hr
5. Connecting links and living fossils (Neopilina, Peripatus, Limulus, Latimaria; Archaeopteryx and Duckbill platypus)
1hr
6. Study of threatened Animals of India (Tiger, Lion, singal horned rhinoceros
Musk deer, gaur, Golden langur, Loin tailed monkey, Python)
1hr
7. Estimation of CO_2 from different water samples
1hr
8. Estimation of dissolved oxygen
1hr
9. Estimation of Total hardness
1hr
10. Study of Ecological Adaptations and Morphological peculiarities, ex-Hermit crab, 1hr
11. Visit to nearby water body to study Ecosystem
1hr

REFERENCE BOOKS:-

- Evolution : Odum
- Organic Evolution: N.Arumugam
- Evolution, Dobzhansky, Ayala, Stebbins & Valantine
- Environmental Biology. Rastogi and Company, Meerut
- Evolution of the Vertebrates, Colbert E.H. John Wiley and Sons, New York
- Ecology; Principles and Application. Chapman, Cambridge university press
- Environmental Biology P.R.Trivedi and gurudeep Raj.
- Recent Advances in Environmental Biology -Diwan and D.K.Arora
- Environmental Science; Eldon.D. Enger and Bradley.F. Smith



Suggestions for Practical Examination

SEM — V-5.1

Q. NO I) Estimation of Carbondioxide/O xgen/Total hardness	8marks
Q. NO II) Evolution (Two spottings)	4 marks
Q NO III) Fossils (Two spottings)	4 marks
Q NO IV) Identification (Zoogeography & Wild life)	4 marks
Q NO V) Project on Local Biodiversity	4 marks
Q NO. VI Viva	10 marks
Q NO. VII Journal	5 marks
	5 marks

Note 1 :- Examiners can alter the Scheme of marks for practical in consultation with the staff of the host college.

marks	Note :2	Theory	Internal	20
marks			Final	80
marks		Practical	Internal	10
marks			Final	40

Note 3: Question paper pattern for THEORY examination

	Q No. 1	02 marks = 20 marks	10* 02
30 marks	Q No. II	05 marks	06* 05
10 marks	Q No. III	10 marks	01* 10
10 marks	Q No. IV	10 marks	01* 10



KLE Society's



**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,
NIPANI - 591 237**

(Accredited at 'A' with 3.35 CGPA in 3rd Cycle by NAAC)

College with Potential for Excellence (CPE)

Web: klegibnnpn.edu.in

Email: klegib_npn@yahoo.com

Ph.: 08338-220116

Ref. No.: GIB/

Date: 17.02.2021

DEPARTMENT OF ZOOLOGY

Study Tour - Local Biodiversity

To,

The Principal
K.L.E Society's
G.I. Bagewadi College, Nipani

Respected sir,

As a part of the curriculum we have arranged one day study tour to Ramling, Nipani for the study of Local Biodiversity for B.Sc V Sem students. 60 students have enrolled their names. Dr. Smt V. R. Naik and Smt. K. I. Pattan will be accompanying the students. This is for your kind Information.

Thanking you Sir,

Head of Department

Head

Department of Zoology

KLE's G. I. B. College, Nipani

*Permitted to organize
Study tour on 18/2/2021*





KLE Society's

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Ph.: 08338-220116

Ref. No.: GIB/

Date: 17.02.2021

DEPARTMENT OF ZOOLOGY


Study Tour - Local Biodiversity

List of Students

Sl.No	Name of the Student	Sign
01	Mr. Adesh U Patil	A.U. Patil
02	Miss. Afrin A Parakute	Afrin
03	Miss. Aishwarya R Kurundwade	A.R.
04	Miss. Akshata A Kulkarni	A.A. Kulkarni
05	Miss. Akshata A Vasawade	A.V.
06	Mr. Aniket R Sadalage	A.R. Sadalage
07	Miss. Anita B Ingale	Anita
08	Miss. Anjali S Patil	A.S.P.
09	Miss. Arpita A Kulkarni	A.A.
10	Miss. Bhagyashri S Ghatage	Bhagyashri
11	Miss. Dhanashri Patil	D.Patil
12	Miss. Gouri M Rajannawar	G.M.R.
13	Mr. Kiran B Irole	K.B.
14	Mr. Kiran K Karibalappagol	K.K.
15	Miss. Komal S Latkar	K.S.
16	Mr. Mahesh S Gavade	M.S.
17	Mr. Mahesh A Kadapure	M.A.Kadapure
18	Mr. Maheshchandra Dhange	M.Dhange
19	Miss. Manasi S Gurav	M.S.
20	Miss. Manjula Bhave	M.Bhave
21	Miss. Manjushree Sattigeri	M.Sattigeri
22	Miss. Megha M Kamble	M.Kamble
23	Miss. Nikita A Patil	N.A.Patil
24	Miss. Nisha Y Chinchane	N.Chinchane
25	Mr. Omkar B Kore	O.B.Kore
26	Mr. Pavan Bilage	P.Bilage
27	Mr. Rakesh Sutar	R.Sutar
28	Miss. Rashmi Siadnale	R.Siadnale
29	Miss. Ritu S Bilkar	R.S.Bilkar
30	Mr. Rudra R Magadum	R.R.Magadum
31	Miss. Rukmini B Talawar	R.B.Talawar
32	Miss. Rutuja D Chougale	R.D.Chougale
33	Miss. Rutuja Desai	R.Desai



33	Miss.Rutuja Desai	Rutuja
34	Miss.Rutuja S Powar	Rutuja
35	Miss.Rutuja Shinde	Rutuja
36	Mr.Sagar Bagadi	Sagar Bagadi
37	Mr.Sahil S Patil	Sahil
38	Miss.Sakshata Jatrata	Sakshata
39	Miss.Sana Galampalli	Sana
40	Miss.Sana Mulla	Sana
41	Miss.Seema Kurane	Seema
42	Mr.Shashidhar Gurav	Shashidhar
43	Miss.Shefali Magadum	Shefali
44	Mr.Shridhar Hawaldar	Shridhar
45	Miss.Shruti Kamate	Shruti
46	Miss.Shrutika Kamate	Shrutika
47	Miss.Shrutika Teli	Shrutika
48	Miss.ShubhangiBhejipatil	Shubhangi
49	Miss.Sneha Ambhi	Sneha
50	Miss.Sneha Ingale	Sneha
51	Miss.Sneha Murabatte	Sneha
52	Miss.Sneha Patil	Sneha
53	Miss.Sounya Magadum	Sounya
54	Mr.Sourabh Vaigude	Sourabh
55	Miss.Shrusti Halagadgi	Shrusti
56	Miss.Suchita Sapgale	Suchita
57	Miss.Sukanya Siganavar	Sukanya
58	Miss.Sushma Mathapati	Sushma
59	Miss.Trupti kamlakar	Trupti
60	Miss.Vaishnavi More	Vaishnavi
61	Miss.Varsha Kore	Varsha
62	Abhishek Narayankar	Abhishek


 Head of Department
 Head
 Department of Zoology
 KLE's G. I. B. College, Nipani





K.L.E. Society's
G.I. Bagewadi Arts, Science, Commerce and PG College, Nipani-591237
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Website: WWW.Klegibnnpn.edu.in E-mail: klegib_npn@yahoo.co.in Ph: 08338-220116

Ref. No.: GIB/

Date: 18/02/2021

REPORT ON - "STUDY OF ECOSYSTEM"

Name of the Department	Zoology
Name of the Event Organized	Field visit
Title of the Event	"Study of Ecosystem"
Date of the Event Organized	18 Feb 2021
Class	B.Sc. V Sem
Field visit location	Ramling
Name of the Convener	Dr. V. R. Naik, Associate Prof.
Participants	60
No. of Participants	Total 61 Teachers 01 Students 60
Name of the Expert with Designation	Smt. S. M. Hegade, Assistant Prof.
Contact Number & Address of the Expert	9008396800. A/P-Nipani, Tal-Chikodi, Dist-Belagavi
Objectives of the Event	Study of Biotic and Abiotic Factors and there inter relations.
Outcome of the Event	1. The students are got knowledge about Pond Ecosystem. 2. They got knowledge about Producers, Consumers And Decomposers.
Photo Gallery	
	
Field Visit To Ramling	Field Visit To Study Ecosystem

Kspattan
HOD
Department of Zoology
G.I. Bagewadi NIPANI

Booble
IQAC Coordinator
Co-ordinator IQAC
K. L. E. Society's
G. I. Bagewadi College, Nipani.

Prwal
PRINCIPAL
G.I. Bagewadi Arts, Science &
Commerce College, NIPANI

Rani Channamma University, Belagavi
B.Sc VI Semester _ 6.1

Paper I

Total hours – 50
Marks _ 80
Theory 4 hrs/week

APPLIED ZOOLOGY (optional)

Sericulture : Mulberry Silkworm and Life History of Bombyx mori

07 hrs

Rearing of Silkworm: Grainage management, Emergence of moth and fertilization, egg laying, hatching and moulting of-silkworm, spinning of cocoons, Cocoon processing, stiffling and spinning silk. Filature. Non mulberry silkwarm, types. in brief & Silkworm diseases- Muscardine, Grasserie, Flacherie & Pebrine.

Apiculture: Species of Honey Bees, their Social organization, Life History

05 hrs

Methods of Bee Keeping, products of Bees, & their Economic importance

Insect Pest Management : Natural control and Applied control of pests

05 hrs

Applied Control __ Mechanical, Physical, Cultural, Legal, Chemical control

Vermiculture: Eerthworm species used in vermiculture,vermiculture technique,and importance of vermiculture.

04 hrs

Aquaculture :

10 hrs

Prawn Fisheries, Species of Prawns, Culture of freshwater and marine Prawns, Preservation and processing of Prawns.

Pearl Culture : Pearl producing molluscans, Pearl formation, Pearl producing

Sites in India. Quality and composition of Pearl.

Pearl Industry:Artificial Insertion of nucleus

Brief technique of Fish culture, Preservation of fishes and their

Byproducts



Poultry : Breeds of fowl, Diseases of poultry, Poultry maintenance and By-products, and CoMposition and Nutritive value of Egg.

06 hrs

Animal Husbandary: Maintenance, Breeds Diseases, Products and By Products of the following

10 hrs

Sheep and Goats, Cow and Buffalos, Composition and Nutritive value of Milk

Lac culture: Classification of Lac insect (Techardia lacca, Life history of Lac

Insect. Host plants, Cultivation of Lac. Compostion and properties & Economic importance

3 hrs.

Practicals – 6.1

Total -11

Practicals

- | | |
|--|---|
| 1. Project on any of the applied branch studied in theory | 1 |
| 2. Study of mulberry silkworm and Life cycle | 1 |
| 3. Types of non mulberry silkworms in brief and Silkworm diseases (Pebrine, Muscardine and Grasserie & Flaturie) | 1 |
| 4. Species and castes of honeybees | 1 |
| 5. Agricultural pests and domestic pests (total 8 varieties) | 1 |
| 6. Study of fisheries __ Molluscs (three), Crustaceans (three) And Pisces (six) | 1 |
| 7. Study of Varieties of sheep and goat (from chart/photographs) | 1 |
| 8. Study of varieties of Cow & Buffalos(from chart/photographs) | 1 |
| 9. Vermiculture __ Study of types of Earthworm species | 1 |
| 10 Study of poultry breeds | 1 |
| 11 Study of Lac insect (Life cycle) | 1 |



Scheme for practicals 6.1 APPLIED ZOOLOGY

Q No. I	Sericulture	03 marks
Q No. II	Apiculture	03 marks
Q No. III	Pest management	03 marks
Q No. IV	Pisciculture	03 marks
Q No. V	Vermiculture	03 marks
Q No. VI	Animal Husbandry	06 marks
Q No. VII	Prawn & Pearl culture	04 marks
Q No. VIII	Project report & Viva	10 marks
Q No. IX	Journal	05 marks

Total 40 marks

Note 1 :Examiners can alter the Scheme of marks for practical in consultation With the staff of the host college.

Note 2 : Theory	Internal	20 marks
	Final	80 marks
Practical	Internal	10 marks
	Final	40 marks

Note 3 : Question paper pattern for THEORY examination

Q No. I marks	02 marks	10* 02	= 20
Q No. II marks	05 marks	06* 05	= 30
Q No. III marks	10 marks	01* 10	= 10
Q No. IV marks	10 marks	01* 10	= 10
Q No. V marks	10 marks	01* 10	= 10

Note 4 : Q Nos IIIrd IV & V each should have one internal option





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Ref. No.: GIB/

Date: 28.08.2021

DEPARTMENT OF ZOOLOGY

Field Visit – Study of Applied Zoology

To,

The Principal

K.L.E. Society's

G.I. Bagewadi College, Nipani

Respected sir,

As a part of curriculum we have arranged Field Visit on 29/08/2021 to study applied zoology in Dairy Farming, Sericulture, Vermiculture, Poultry Farming, and Insect Pest Management for B.Sc. VI Sem students to Nipani surrounding Area. 62 students have enrolled their names. Miss. S. M. Hegade and Smt. A. S. Mangavate will be accompanying the students. This is for your kind information.

Thanking you Sir,

Head

Department of Zoology

HEAD

Department of Zoology

G. I. Bagewadi College, Nipani.

Principal

PRINCIPAL

G.I. Bagewadi Arts, Science &
Commerce College, NIPANI.





KLE Society's
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Ph.: 08338-220116

Ref. No.: GIB/

Date: 29.08.2021

DEPARTMENT OF ZOOLOGY

Field Visit – Applied Zoology

List of Students

Sl.No	Name of the Student	Sign
01	Mr. Adesh U Patil	A. U. Patil
02	Miss. Afrin A Parakute	Afrin A Parakute
03	Miss. Aishwarya R Kurundwade	Aishwarya R Kurundwade
04	Miss. Akshata A Kulkarni	Akshata A Kulkarni
05	Miss. Akshata A Vasawade	Akshata A Vasawade
06	Mr. Aniket R Sadalage	Aniket R Sadalage
07	Miss. Anita B Ingale	Anita B Ingale
08	Miss. Anjali S Patil	Anjali S Patil
09	Miss. Arpita A Kulkarni	Arpita A Kulkarni
10	Miss. Bhagyashri S Ghatage	Bhagyashri S Ghatage
11	Miss. Dhanashri Patil	Dhanashri Patil
12	Miss. Gouri M Rajannawar	Gouri M Rajannawar
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14	Mr. Kiran K Karibalappagol	Kiran K Karibalappagol
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17	Mr. Mahesh A Kadapure	Mahesh A Kadapure
18	Mr. Maheshchandra Dhange	Maheshchandra Dhange
19	Miss. Manasi S Gurav	Manasi S Gurav
20	Miss. Manjula Bhawe	Manjula Bhawe
21	Miss. Manjushree Sattigeri	Manjushree Sattigeri
22	Miss. Megha M Kamble	Megha M Kamble
23	Miss. Nikita A Patil	Nikita A Patil
24	Miss. Nisha Y Chinchane	Nisha Y Chinchane
25	Mr. Omkar B Kore	Omkar B Kore
26	Mr. Pavan Bilage	Pavan Bilage
27	Mr. Rakesh Sutar	Rakesh Sutar
28	Miss. Rashmi Siadnale	Rashmi Siadnale
29	Miss. Ritu S Bilkar	Ritu S Bilkar
30	Mr. Rudra R Magadum	Rudra R Magadum
31	Miss. Rukmini B Talawar	Rukmini B Talawar



32	Miss.Rutuja D Chougale	<i>Rutuja</i>
33	Miss.Rutuja Desai	<i>Rutuja Desai</i>
34	Miss.Rutuja S Powar	<i>Rutuja</i>
35	Miss.Rutuja Shinde	<i>Rutuja</i>
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38	Miss.Sakshata Jatrata	<i>Sakshata</i>
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40	Miss.Sana Mulla	<i>Sana Mulla</i>
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42	Mr.Shashidhar Gurav	<i>Shashidhar Gurav</i>
43	Miss.Shefali Magadum	<i>Shefali</i>
44	Mr.Shridhar Hawaldar	<i>Shridhar</i>
45	Miss.Shruti Kamate	<i>Kamate</i>
46	Miss.Shrutika Kamate	<i>Kamate</i>
47	Miss.Shrutika Teli	<i>Shrutika</i>
48	Miss.Shubhangi Bhejipatil	<i>Shubhangi</i>
49	Miss.Sneha Ambi	<i>Sneha</i>
50	Miss.Sneha Ingale	<i>Sneha</i>
51	Miss.Sneha Murabatte	<i>Smt</i>
52	Miss.Sneha Patil	<i>SIP</i>
53	Miss.Soumya Magadum	<i>SR</i>
54	Mr.Sourabh Vaigude	<i>Sourabh</i>
55	Miss.Shrusti Halagadgi	<i>Shrusti Halagadgi</i>
56	Miss.Suchita Sapagale	<i>S. C. Sapagale</i>
57	Miss.Sukanya Sigavar	<i>Singh</i>
58	Miss.Sushma Mathapati	<i>Sushma</i>
59	Miss.Trupti kamlakar	<i>TK</i>
60	Miss.Vaishnavi More	<i>V. More</i>
61	Miss.Varsha Kore	<i>Varsha</i>
62	Abhishek Narayankar	<i>Abhishek</i>

file

HOD

Department of Zoology
G. I. Bagewadi College, Nipani





K.L.E. Society's
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Ref. No.: GIB/

Date: 29/08/2021


REPORT ON "APPLIED ZOOLOGY"

Name of the Department	Zoology
Name of the Event Organized	Applied Zoology
Title of the Event	Different Branches Of Applied Zoology
Date of the Event Organized	29/08/2021
Class	B.Sc. VI Sem
Name of the Convener	Smt.S.M.Hegade
Participants	63
No. of Participants	Total 62 Teachers 02 Students 62
Name of the Expert with Designation	Miss. Sampada Hegade
Contact Number of the Expert	9008396800 A/P: Nipani Tq: Chikkodi Dist: Belagavi
Objectives of the Event	1.To know about Different breeds of Cow and Buffalo 2.To Study the rearing of silk from silkworm
Outcome of the Event	1. They got knowledge about poultry farming.. 2.Students understood about how vermicompost plays an important role in soil fertility and growth of crops. 3. They learnt Broilers, Chickens value and marketing.
Photo Gallery	
	
Observing Indigenous buffalo breeds.	Study of different pest at ARS Campus Nipani


HOD

Department of Zoology
G. I. Bagewadi College, Nipani.


IQAC Coordinator
Co-ordinator IQAC
K. L. E. Society's
G. I. Bagewadi College, Nipani.


PRINCIPAL
PRINCIPAL
G.I. Bagewadi Arts, Science &
Commerce College, NIPANI.

B.Sc Sixth semester (6.2) Paper II (Microbiology and Modern techniques in Biology)

Microbiology (18 Hours)

SMH Microscopy: Compound microscope and its functions. Dark field microscope, Fluorescent microscope, Phase Contrast Microscope and Electron Microscope
Uses of different types of microscopes

VRNS Sterilization and other techniques: Physical and chemical methods

SMH Bacteria: Classification based on shapes, structure. Bacterial reproduction and growth.

KIP Virus: Morphology, chemical properties, classification, nomenclature, DNA & RNA viruses

Fungi: Structure, classification and reproduction, Yeasts

Fermentation: Types of fermentor and basic functions. Methods of preservations and criteria for the selection of microorganisms

Production of antibodies: Penicillin, Streptomycin, Enzyme protease, Riboflavin 2

VRNS Oral microbial flora of the human body
Role of microbes in environment

SMH Nanotechnology: (5 Hrs)

Introduction, History, Name, Tools and Techniques in Nanotechnology.

Nanobiology - application of Nano in biology- Nano drug administration, diagnostic And therapeutic applications. Lotus effect, Gold and Silver Nanotechnology.

Curcumin phytochemicals, Cinnamon in green nano technology

SMH Bioinformatics (7 Hrs)

Introduction: Definition, Goal of Bioinformatics, Sequencing - Sequences analysis and Structure analysis. Applications of Bioinformatics

Classification of Biological Data Bases. Characteristics of FASTA (Fast Alignment), BLAST (Basic Local Alignment Search Tool)

Aims and goals of Human Genome Project: Main findings of human genome project. Prediction and tools for gene prediction. Comparative genomics

SMH Proteomics: Two dimensional Gel Electrophoresis Mass spectrometry, SDS_PAGE. Structure of protein: Primary, Secondary, Tertiary and Quarternary.



Protein structure prediction [Ab initio modeling Example Rosetta]
Application of Proteome analysis, the future of Proteomics

Methods in Biology (10 Hours)

Techniques of cell fraction and centrifugation.

Homogenization and cell tissue disruption, centrifugation, ultra centrifugation

SMK DNA sequencing, in situ hybridization, DNA microchips

Genetic engineering in animals - Transgenic mouse, Transgenic sheep,

Genetically altered fish, mosquito and Drosophila.

Gene therapy in Humans

Histochemical and Immunization Techniques: ELISA, RIA, Flow cytometry

Nucleic acid blotting & their applications: Southern blotting, Northern blotting, Western blotting

Radioisotopes: Techniques in Biochemistry. Types of radioactive decay- Alpha, Beta emission & Gamma rays

Biological applications of Radioisotopes

Research Methodology: (10 Hours)

KIP.

Meaning and objectives of research, motivation in research, research and scientific method, understanding the research problem, Sampling Design (Sample Survey), methods of data collection, analysis of data, Interpretation and report writing, role of computer in research

Question paper pattern for theory examination B.Sc Sixth Semester (Paper – II)

Q. I	2 marks	12 questions to be given	Solve any 10	20 marks
Q. II	5 marks	6 questions to be given	Solve any 5	30 marks
Q. III	10 marks	2 questions to be given	Solve any 1	10 marks
Q. IV	10 marks	2 questions to be given	Solve any 1	10 marks
Q. V	10 marks	2 questions to be given	Solve any 1	10 marks



B.Sc Sixth Semester (Practical II) Practical Syllabus Total Practicals – 11

1.	Measurement of micro organisms (Micrometry)	1 Practical
2.	Preparation of liquid medium (Broth)	1 Practical
3.	Preparation of solid media (PDA medium and PDA plates)	1 Practical
4.	Preparation of agar slants.	1 Practical
5.	Study of different types of bacteria, viruses and fungi causing diseases in man	1 Practical
6.	Bacterial cell counting using haemocytometer.	1 Practical
7.	Simple and Grams's staining differentiation of bacteria	1 Practical
8.	Isolation, Identification and enumeration of Bacteria/Protozoa from moist soil or sewage water	1 Practical
9.	Practical application of Bioinformatics: Tool BLAST and FASTA to find out sequence of nucleotides in undesired gene/Amino acid in desired protein	1 Practical
10.	Study of Microbiological Lab Equipments: Microscope, Centrifuge, Autoclave, Pressure cooker, Laminar air flow, Streak Plate, Inoculation needle etc.	2 Practicals

Question paper pattern for practical examination

I	Microbiology, Nanotechnology	8
II	Bioinformatics	6
III	Spotting (1 each from bacteria, virus, fungi)	6
IV	Viva	5
V	Submission of detailed report on specific local problem (research)	10
VI	Journal	5

Total 40



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Ref. No.: GIB/

Date: 28.08.2021

DEPARTMENT OF ZOOLOGY

Study Visit – Survey on COVID-19 in and around Nipani Area (Specific Local Problem)

To,

The Principal

K.L.E. Society's

G.I. Bagewadi College, Nipani

Respected sir,

As a part of curriculum we have arranged Study visit on 29/08/2021 for the survey on COVID-19 affected population from officials in and around Nipani Area by B.Sc. VI Sem students.

So kindly permit for this Visit

Thanking you Sir,

Head

Department of Zoology

HEAD

Department of Zoology

G. I. Bagewadi College, Nipani.

Principal

PRINCIPAL

G.I. Bagewadi Arts, Science &
Commerce College, NIPANI.





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Web: klegibnpr.edu.in Email: klegib_npn@yahoo.com

Ph.: 08338-220116

Ref. No.: GIB/

Date: 21.08.2021

DEPARTMENT OF ZOOLOGY

Study Tour – Research Methodology

List of Students

Sl.No	Name of the Student	Sign
01	Mr. Adesh U Patil	A. U Patil
02	Miss. Afrin A Parakute	Afrin A Parakute
03	Miss. Aishwarya R Kurundwade	Aishwarya R Kurundwade
04	Miss. Akshata A Kulkarni	A Akulkarni
05	Miss. Akshata A Vasawade	A Vasawade
06	Mr. Aniket R Sadalage	Aniket R Sadalage
07	Miss. Anita B Ingale	Anita B Ingale
08	Miss. Anjali S Patil	Anjali S Patil
09	Miss. Arpita A Kulkarni	Arpita A Kulkarni
10	Miss. Bhagyashri S Ghatage	Bhagyashri S Ghatage
11	Miss. Dhanashri Patil	Dhanashri Patil
12	Miss. Gouri M Rajannawar	Gouri M Rajannawar
13	Mr. Kiran B Irole	Kiran B Irole
14	Mr. Kiran K Karibalappagol	Kiran K Karibalappagol
15	Miss. Komal S Latkar	Komal S Latkar
16	Mr. Mahesh S Gavade	Mahesh S Gavade
17	Mr. Mahesh A Kadapure	Mahesh A Kadapure
18	Mr. Maheshchandra Dhange	Maheshchandra Dhange
19	Miss. Manasi B Gurav	Manasi B Gurav
20	Miss. Manjula Bhawe	Manjula Bhawe
21	Miss. Manjushree Sattigeri	Manjushree Sattigeri
22	Miss. Megha M Kamble	Megha M Kamble
23	Miss. Nikita A Patil	Nikita A Patil
24	Miss. Nisha Y Chinchane	Nisha Y Chinchane
25	Mr. Omkar B Kore	Omkar B Kore
26	Mr. Pavan Bilage	Pavan Bilage
27	Mr. Rakesh Sutar	Rakesh Sutar
28	Miss. Rashmi Siadnale	Rashmi Siadnale
29	Miss. Ritu S Bilkar	Ritu S Bilkar
30	Mr. Rudra R Magadum	Rudra R Magadum
31	Miss. Rukmini B Talawar	Rukmini B Talawar



32	Miss.Rutuja D Chougale	<i>R.D.</i>
33	Miss.Rutuja Desai	<i>RD</i>
34	Miss.Rutuja S Powar	<i>Rupar</i>
35	Miss.Rutuja Shinde	<i>RShinde</i>
36	Mr.Sagar Bagadi	<i>Sagadi</i>
37	Mr.Sahil S Patil	<i>Spatil</i>
38	Miss.Sakshata Jatrata	<i>Sakshata</i>
39	Miss.Sana Galampalli	<i>S.M. Galampalli</i>
40	Miss.Sana Mulla	<i>S.Mulla</i>
41	Miss.Seema Kurane Kunnure	<i>SKunnure</i>
42	Mr.Shashidhar Gurav	<i>Shashidhar</i>
43	Miss.Shefali Magadum	<i>Shefali</i>
44	Mr.Shridhar Hawaldar	<i>SH</i>
45	Miss.Shruti Kamate	<i>SKamate</i>
46	Miss.Shrutika Kamate	<i>SKamate</i>
47	Miss.Shrutika Teli	<i>Shrutika</i>
48	Miss.Shubhangi Bhejipatil	<i>Shubhangi</i>
49	Miss.Sneha Ambi	<i>Sneha</i>
50	Miss.Sneha Ingale	<i>Sneha</i>
51	Miss.Sneha Murabatte	<i>SM</i>
52	Miss.Sneha Patil	<i>SP</i>
53	Miss.Soumya Magadum	<i>SM</i>
54	Mr.Sourabh Vaigude	<i>SVaigude</i>
55	Miss.Shrusti Halagadgi	<i>SHalagadgi</i>
56	Miss.Suchita Sapgale	<i>S.Sapgale</i>
57	Miss.Sukanya Siganavar	<i>S.Siganavar</i>
58	Miss.Sushma Mathapati	<i>S.Mathapati</i>
59	Miss.Trupti kamlakar	<i>T.Kamlakar</i>
60	Miss.Vaishnavi More	<i>Vaishnavi</i>
61	Miss.Varsha Kore	<i>Varsha</i>
62	Abhishek Narayankar	<i>Abhishek</i>

[Signature]

HOD

Department of Zoology
G. L. Bagewadi College, Nipani





K.L.E. Society's
G.L. Bagewadi Arts, Science, Commerce and PG College, Nipani-591237
Re-accredited at 'A' level by NAAC with CGPA 3.35



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Ref. No.: GIB/

Date: 18.08.2021

Report on - "Study of Specific Local Problem (Survey of COVID-19 in and around Nipani Area)"

Name of the Department	Zoology
Name of the Event Organized	Study Visit
Title of the Event	Survey of COVID-19 in and around Nipani Area.
Date of the Event Organized	18.08.2021
Class	B.Sc VI Sem
Project location	Surrounding Nipani
Name of the Convener	Mr.Vaibhav.Ugare
Participants	63
No. of Participants	Total: 63 Teachers: 01 Students: 62
Name of the Expert with Designation	Mr.Vaibhav.Ugare
Contact Number & Address of the Expert	9900293132
Objectives of the Event	1. To study COVID-19 affected population in and around Nipani Area. 2. To know about how many people affected from corona virus and how many become vaccinated in rural areas.
Outcome of the Event	1. Totally 5146 people were affected from COVID-19 and 438 patients were died. 2. From 130877 population, 92248 people were got Covishield Vaccine and 38,629 people were got Covaxin.
Photo Gallery	
	
COVID-19 Survey at Hanchinal Village.	Mr. Vaibhav Ugare explaining about COVID-19



HOD

Department of Zoology
G. I. Bagewadi College, Nipani.


IQAC Co-ordinator
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