

**OPTIONAL / COMPULSORY SUBJECT FOR THE DEGREE IN SCIENCE  
SUBJECTS**

**Science Subjects: (any three subject of equal importance to be chosen as per  
the grouping given by Rani Channamma University, Belagavi)**

**DETAILED SYLLABUS OF FOLLOWING PAPERS WITH PRACTICALS**

**1. BOTANY (optional)**

**B.Sc. III Semester**

**Subject: BOTANY (optional)**

**Paper-: Diversity of Cryptogams (Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms) 52 Hrs**

**Unit I: Algae 10 hrs.**

General characters, Pigmentation, Classification by Fritsch (up to class level). Distribution, thallus structure, reproduction and life cycle of Nostoc, Volvox, Oedogonium, Sargassum and Batrachospermum. Economic importance.

**Unit II: Fungi 08 hrs.**

General characters, Classification (Alexopoulos's system). Distribution, Structure, Reproduction and life cycle of Albugo, Rhizopus, Penicillium and Puccinia. Economic importance of fungi. General account of lichens.

**Unit III: Plant Pathology 06 hrs.**

General account of Bacteria and Viruses. Introduction and general symptoms of plant diseases. Symptoms, Pathogens and control measures of Late blight of potato, White rust of crucifers, Tikka disease of ground nut.

**Unit IV: Bryophytes 06 hrs.**

General characters, Classification (Smith). Structure, reproduction and schematic life cycle of Riccia, Anthoceros and Funaria. (Developmental details are not expected). Evolution of sporophytes.

**Unit V: Pteridophytes 10 hrs.**

General characters and classification. Distribution, Structure (External and Internal) and Reproduction of Psilotum, Selaginella, Equisetum and Nephrolepis (Developmental details are not expected). Stelar evolution. Heterospory and seed habit

**Unit VI: Gymnosperms 08 hrs.**

General characters and classification. Distribution, Structure (External and Internal) and Reproduction of Cycas, Pinus and Gnetum (Developmental details are not expected).



Unit VII: Paleobotany

04 hrs.

Geological time scale, fossilization-molds, Impression, Petrification and cast.

Study of fossils - Calamitis, Lepidodendron, Lygenopteris

### **B.Sc. III Semester PRACTICALS**

**Total number of hours per week: 04, Internal Assessment=10 Marks, Max Marks: 40**

1. Vegetative and reproductive structures of Nostoc, Volvox and Oedogonium.
2. Vegetative and reproductive structures of Sargassum and Batrachospermum
3. Vegetative, reproductive structures and disease symptoms of Albugo, Rhizopus and Penicillium.
4. Vegetative, reproductive structures and disease symptoms of Puccinia. Lichens
5. Study of Vegetative and Reproductive structures of Riccia, Anthoceros and Funeria.
6. Study of Vegetative and Reproductive structures of Psilotum and Selaginella.
7. Study of Vegetative and Reproductive structures of Equisetum and Nephrolepis.
8. Study of Vegetative and Reproductive structures of Cycas, Pinus and Gnetum.
9. Disease symptoms and control measures of Late blight of potato, Black rust of Wheat, Tikka disease of ground nut.
10. Paleobotany- Study of fossils Lepidodendron, Calamitis, Lygenopteris.
11. Field visits.

### **B.Sc. III Semester**

#### **Botany Practical Examination**

**Time: 4 Hours Max Marks: 40**

- Q1: Identify and classify specimens A, B, C giving reasons. 09 marks
- Q2: Identify and explain the internal structures of specimen D and E with the neat labelled diagrams (Show the preparation to the examiner) 10 marks
- Q 3: Identify & describe the salient features in the slides/ specimens E, F, G, H, I and J 12 marks
- Q4: Identify & describe the salient features in the fossil specimen K. 03 marks
- Journal 04 marks
- Field visit report 03 marks





K. L. E. Society's

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

[Accredited at 'A' level by NAAC with CGPA 3.35 in 3<sup>rd</sup> Cycle]

Website: www.klegibcollege.com

Ph: 08338-220116, 220416

E-mail: klegibbotany@gmail.com

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## DEPARTMENT OF BOTANY

Ref.: E/E/Study tour

Date: 08.09.2017

### Report on Study Tour/Field Visit for the year 2017-18

Name of the Department	Botany							
Name of the Event Organized	One Day Tour							
Title of the Event	Sthavanidhi and Ramalingeshwar							
Date of the Event Organized	07.09.2017							
Name of the faculty accompanied	Smt. S.B.Patil Smt. S.S.Sumal Dr.S.D.Payamalle							
Participants	III semester students							
No. of Participants	Total	45	Teachers	03	Students	42	Others	-
Objectives of the Event	1. To study the plants in natural habitats. 2. To understand the Distribution of cryptogamic Plants.							
Outcome of the Event	1. Students were able observe plants in natural habitats 2. Students understood the Distribution of cryptogamic Plants							
Photo Gallery								

**HOD**  
**HEAD**  
 Department of Botany  
 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,



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Date : 06/09/2017

## DEPARTMENT OF BOTANY

To,  
The Principal  
G.I. Bagewadi college,  
Nipani  
Sir,

Subject – Request to grant Permission to conduct local excursion

With reference to the above mentioned subject and as per the syllabus of RCU Belagavi, there is a compulsory local excursion for B.Sc.III semester students to study biodiversity of plants. So, we have decided to visit Sthavanidi and Shippur Ghats for study and collection. We request your kind permission for the same on 7<sup>th</sup> of September 2017.

Thanking you,

Thanking you,

Yours faithfully,

(Prof. S. B. Patil)  
Head of the Department  
Department of Botany  
G. I. Bagewadi College, Nipani.

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



K. L. E. SOCIETY'S

G. I. Bagewadi Arts, Science, Commerce and PG College, Nipani-591237  
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E-mail: [klecjbotany@gmail.com](mailto:klecjbotany@gmail.com)

Ref.: Bot/E:/E:/CR I/ Study Tour

Date: 06.09.2017

### DEPARTMENT OF BOTANY

S.No	Year	Places visited	Class	Days	No. of Students	Staff in charge	
1.	2017-18	Sthavanidhi and Ramalingeshwar	B.Sc sem	III	1 Day	42	Smt. S.B.Patil Smt. S.S.Sunnal Dr.S.D.Payamalle

Sl.No	III sem students' List 2017-18	Sl.No	III sem students' List 2017-18
1	Abhishek Chougale	22	Omkar Magadum
2	Amit Ammanagi	23	Pallavi Sangane
3	Arati Gore	24	Pooja Ghorpade
4	Ashrafali Bargir	25	Pranali Chavan
5	Chaitali Hegade	26	Puja Karekar
6	Chaitra Hasure	27	Rachana Patil
7	Devyani Khot	28	Sangram Sanadi
8	Dhanashree Hasure	29	Santosh Blagi
9	Dhanashree Chalake	30	Seema Lagamannavar
10	Dhanashri Patil	31	Sharad Banne
11	Digvijay Nigave	32	Sheetal Magadum
12	Divya Chandrakude	33	Shivatej Chougale
13	Gauravkumar Chougale	34	Shweta Sapagale
14	Jayashree Balikal	35	Sneha Kamble
15	Komal Kadam	36	Soumya Patil
16	Madhuri Shelake	37	Sunita Patil
17	Malagouda Patil	38	Tejas Patil
18	Manoj Kumbhar	39	Vaishnavi Ajarekar
19	Narendra Patil	40	Vaishnavi Amble
20	Nutan Kurane	41	Yogesh Varute
21	Nutan Shettimanj	42	Pooja Reddy

HOD  
**HEAD**

Department of Botany  
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.

**Group – II**  
**OPTIONAL / COMPULSORY SUBJECT FOR THE DEGREE IN SCIENCE**  
**SUBJECTS**

**Science Subjects: (any three subject of equal importance to be chosen as per the grouping given by Rani Channamma University, Belagavi)**

**DETAILED SYLLABUS OF FOLLOWING PAPERS WITH PRACTICALS**

**1. BOTANY (optional)**

**SEMESTER-IV**

**I DIVERSITY OF ANGIOSPERMS AND THEIR SYSTEMATICS 60 hrs**

**Section – I**

**Morphology and Taxonomy**

- Unit 1: Angiosperms: origin and evolution. 2 hrs.
- Unit 2: Morphology of Angiosperms – Study of roots, stems, leaves and their modifications.  
Study of Inflorescence, flower and fruits 10 hrs.
- Unit 3: Angiosperm taxonomy: Brief history, botanical nomenclature, principles and rules, taxonomic ranks, type concept and principle of priority. 4 hrs.
- Unit 4: Classification of Angiosperms : systems proposed by Bentham and Hooker and Engler prantl. Their salient features, merits and demerits. Major contributions of cytology (cytotaxonomy), phytochemistry (chemotaxonomy) and taxometrics (numerical taxonomy) to taxonomy 6 hrs.
- Unit 5: Diversity of flowering plants as illustrated by members of the following families:  
Magnoliaceae, Annonaceae, Brassicaceae, Malvaceae, Rutaceae, Rhamnaceae, Anacardiaceae, Fabaceae Myrtaceae, Combretaceae, Cucurbitaceae, Apiceae, Rubiaceae, Asteraceae, Sapotaceae, Apocyanaceae Asclepiadaceae, Convolvulaceae, Solanaceae, Acanthaceae, Verbenaceae, Lamiaceae, Amaranthaceae, Euphorbiaceae, Urticaceae, Orchidaceae, Amaryllidaceae, Liliaceae, Arecaceae and Poaceae. 24 hrs

**Section – II**

**Economic Botany and Medicinal botany**

**Economic Botany:**

**Food plants:** Rice, Wheat, Maize, Pulses, Potato and Sugarcane

**Fibres:** Cotton, Jute, Agave and Deccan hemp

**Vegetable oils:** Ground nut, Sunflower, Coconut, Palm oil and Castor

**General account and sources of Timber:** Teak and Sissoo

**Paper & pulp:** Bamboo & Eucalyptus

**Spices:** Ginger, Cinnamom and Cardamom

**Beverages:** Tea & Coffee

**Rubber:** Hevea sp.

**10 hrs.**



### **Medicinal botany:**

Plants in primary health care: common medicinal plants- Tippateega (*Tinospora cordifolia*), Tulsi (*Oscimunsanctum*) Kalabanda (*Aloe-vera*) Turmeric (*Curcuma longa*) Ashwagandha (*Withania somnifera*) and Sarpagandha (*Rauwolfia serpentina*) 4 hrs

### **Practicals:-**

1. Morphology of Root , Stem and their modifications.
2. Morphology of Leaf and its modifications.
3. Study of Inflorescence and its types.
4. Study of Flower- Descriptive terms, Thalamus, Calyx, Corolla and Aestivation.
5. Study of Flower –Androecium and Gynoecium.
6. Study of Fruit types.
7. Study of any 20 families representing from polypetalae, gamopetalae, apatalae and monocots available in the locality.
8. Economic botany
9. Study of Medicinal Plants available in the locality.
10. Study Tour for minimum Two days to study the Flora (Taxonomy).

### **Suggested readings:**

1. Davis, P.H. and Heywood, V.H. 1963. principles of angiosperm taxonomy. Oliver and boyd, London.
2. Heywood, V.H. and moore, D.M. (EDS) 1984. current concepts in plant taxonomy academic ress, London
3. Jeffery, C. 1982. An introduction to plant taxonomy. Cambridge university press, cambridge , London.
4. Jones, S.B. Jr and luchsinger, A.E. 1986. plant systematics (2nd edition). McGraw Hill book co, newyork.
5. Radford, A.E. 1986. fundamentals of plant systematics. Harper and Row, newyork.
6. Singh, G. 1999. plant systematics; theory and practice. Oxford and IBH, newdelhi.
7. Atace, C.A. 1989. plant taxonomy and bio systematics (2nd edition). Edward Arnold, London.
8. Dutta, S.C. 1988. systematic botany. walley eastern, newdelhi.
9. Jaques, H.E. 1999. plant families- how to know them. IBS, newdelhi.
10. Lawrence, G.H.M. 1951. taxonomy of vascular plants. Macmillan, newdelhi.
11. Stewart, W.M. 1983. Paleobotany and the evolution of plants, cambridge university press, cambridge.
12. Joshi S.G. medicinal plants oxford and IBH newdelhi.
13. Kokate and Gokeale \_pharmacognacy. Nerali publication , newdelhi.
14. Lad v Ayurveda- the scince of self healing- motilal banarasidas, newdelhi.
15. Lewis W.H. and M.P, F Elwin Lewis 1976, medical botony plants affecting maris health. A wiley interscience publication, Jhon willey and sons newyork.
16. College botany vol 1 by Gangulee, Das and Datta. New central book agency, Calcutta.



17. Systematic botany by R.N Sutaria.
18. Taxonomy of Angiosperms by B.P.Pandey.
19. Kocchar, S.L. 1998. Economic Botany in Tropics. 2nd edition, Macmillian Ltd, New Delhi.
20. Sambamurthy, A.V.S.S and subramanyam, N.S. 1989. A Text Book of Economic Botany, Wiley Eastern Ltd. New Delhi.
21. Sharma, O.P. 1996. Hill's Economic Botany. Tata McGraw Hill Co., Ltd., New Delhi.
22. Simpson, B.B. and Conner-Ogorzaly, M. 1986. Economic Botany-plants in our world. McGraw Hill, New York.
23. Hill. A.F. 1989. Economic Botany. Tata McGraw-Hill, New York.
24. Herbs Cultivation and Medicinal Uses- H. Panda – NIIR Publication, New Delhi.
25. Chopra R.N., Badhuvar R.L. & Ghosh G. (1965)- Poisons Plant of India.
26. Jain S.K. – Medicinal Plant.

#### B.SC. IV SEMESTER

#### PRACTICAL EXAMINATION

Time : 4 Hours Max Marks: 40 Marks

- |   |           |
|---|-----------|
| Q1. Assign the specimens A,B,C&D to the respective families giving diagnostic features and their classifications. | 10 Marks  |
| Q2. Draw the floral diagram and write the floral formula of specimen "E"  | 03 Marks  |
| Q3. Explain the morphological peculiarities observed in the specimens F, G, H & I                                 | 10 Marks  |
| Q4. Identify giving botanical name and family of specimens J, K, L & M. Mention the parts used & their uses.      | 08 Marks  |
| Journal   | 05 Marks. |
| Study tour report   | 04 Marks  |





## DEPARTMENT OF BOTANY

Ref.: E/E/Study tour


Date: 23.03.2018

### Report on Study Tour/Field Visit for the year 2017-18

Name of the Department	Botany								
Name of the Event Organized	Study Tour								
Title of the Event	Shivaji University Botanical Garden, Kolhapur.								
Date of the Event Organized	21.03.2018								
Name of the faculty accompanied	Smt. S.B.Patil, Smt. J.R.Tikke, S.S.Sunnal and Dr.S.D.Payamalle								
Participants	IV semester Botany Students								
No. of Participants	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Total</td> <td>43</td> <td>Teachers</td> <td>04</td> <td>Students</td> <td>38</td> <td>Others</td> <td>1</td> </tr> </table>	Total	43	Teachers	04	Students	38	Others	1
Total	43	Teachers	04	Students	38	Others	1		
Objectives of the Event	<ol style="list-style-type: none"> <li>1. To study the taxonomy</li> <li>2. To study the Distribution of angiosperms</li> </ol>								
Outcome of the Event	<ol style="list-style-type: none"> <li>1. Students were able to study plants belonging to different Taxa.</li> <li>2. Students understood the Distribution of Angiosperm Plants</li> </ol>								
Photo Gallery									
									

  
**HOD**  
**HEAD**  
 Department of Botany  
 G. I. Bagewadi College, Nipani

  
 IQAC Coordinator  
**Co-ordinator IQAC**  
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## DEPARTMENT OF BOTANY

To,

The Principal

KLEs G.I. Bagewadi College

Nipani

Sir,

**Subject: – Request to permit to visit Botanical Garden, Shivaji University  
Kolhapur.**

As per the syllabus of RCU Belagavi, there is a taxonomic study for IV semester students and therefore we want to visit Botanical Garden, Shivaji University Kolhapur on 21<sup>st</sup> March 2018. So we kindly request you to permit us to visit the same.

We hope you will do the needful.

Thanking You

HOD

Department of Botany  
HEAD

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





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Ph: 08338-220116, 220416

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## DEPARTMENT OF BOTANY

To,

Dr. D. K. Gaikwad

Professor and HOD

Department of Botany

Shivaji University Kolhapur

Sir,

**Subject: – Permission to visit your Botanical Garden.**

As per the syllabus of RCU Belagavi, there is a taxonomic study for IV semester students and therefore we would like to visit your Botanical Garden on **21<sup>st</sup> March 2018**. So we kindly request you to permit us to visit the same.

We hope you will do the needful.

Thanking You

HOD

Department of Botany

Department of Botany

G. I. Bagewadi College, Nipani.

Principal  
PRINCIPAL

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



Ref.: Bot/E:/E:/CR-1/ Study Tour

Date: 21.03.2018

## DEPARTMENT OF BOTANY

S.No	Year	Places visited	Class	Days	Staff in charge
1.	2017-18	Shivaji University Botanical Garden, Kolhapur.	IV sem	1 Day	Smt. S.S.Sunnal Dr.S.D.Payamalle

Sl.No	IV sem students' List 2017-18	Sl.No	IV sem students' List 2017-18
1	Arati Gore	15	Pallavi Sangane
2	Chaitali Hegade	16	Pranali Chavan
3	Chaitra Hasure	17	Puja Karekar
4	Devyani Khot	18	Rachana Patil
5	Dhanashree Hasure	19	Seema Lagamannavar
6	Dhanashree Chalake	20	Sharad Banne
7	Dhanashri Patil	21	Sheetal Magadum
8	Digvijay Nigave	22	Shivatej Chougale
9	Divya Chandrakude	23	Shweta Sapagale
10	Jayashree Balikai	24	Sneha Kamble
11	Komal Kadam	25	Sunita Patil
12	Madhuri Shelake	26	Tejas Patil
13	Nutan Kurane	27	Vaishnavi Ajarekar
14	Nutan Sheltimani	28	Vaishnavi Amble

  
 HOD  
**HEAD**

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

  
 IQAC Coordinator  
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## Semester V

(w.e.f 2016-17)

### Botany Paper – II

**Paper-II: Ecology, Environmental Biology and Phytogeography**

50 hrs

**Objectives:**–This paper has topics on pollution, pollution control and forestry. Considering the present scenario with respect to environment these topics are most valuable.

**Unit 1: Plant and environment:** Atmosphere (gaseous composition), water (properties of water cycle), light (global radiation, photo synthetically active radiation), temperature, soil (development, soil profiles, physico-chemical properties), and biota.

Morphological, anatomical and physiological responses of plants to water (hydrophytes, xerophytes and epiphytes), temperature (thermoperiodicity and vernalization), light (photoperiodism, heliophytes and sciophytes) and salinity.

12 Hrs.

**Unit 2: Population ecology and Ecosystems:** Growth curves; ecotypes; ecads, Ecological succession-hydrach and xerarch. Structure of Ecosystems (Pond and Forest): abiotic and biotic components; food chain, food web, ecological pyramids, energy flow.

10 Hrs.

**Unit 3: Phytogeography:** Botanical regions of world, Vegetation types of Karnataka and India.

06 Hrs.

**Unit 4: Conservation of Natural resources:** Different types of natural resources and their conservation,

**Forest and Forest Management:** Forest and its ecological significance, deforestation, forest management and social forestry. Natural depletion of vegetation endangered and threatened economic plants of India and red data book. Wild life management in India, Indian board of wild life, national park and sanctuary.



**Energy resources: conventional and non conventional sources of energy.**

**Biodiversity: significance, types, depletion, conservation of biodiversity.**

**12 Hrs.**

**Unit 5: Pollution: Introduction, causes, effects and control measures of Water pollution, Air pollution, Soil pollution, Acid rain, Global warming, and Ozone depletion.**

**Sewage water and waste water types, Methods of effluent treatment of industrial waste water, sludge disposal and its care related to environment.**

**10 Hrs.**

**Practical:**

1. Study of frequency and density of herbaceous plants by quadrat method.
2. To determine moisture content and water holding capacity of different types of soils.
3. To estimate the alkalinity of water samples.
4. Ecological instruments.
5. Morphology and anatomical adaptations in three hydrophytes.
6. Morphology and anatomical adaptations in xerophytes: One succulent and one non-succulent, one epiphyte and one halophyte.
7. Waste water analysis, physical chemical parameter, pH, turbidity, TDS, BOD, COD, temperature and any other inorganic elements.
8. Visit to effluent treatment plant to study recycling of waste water near by industry and study the effect of industrial pollution nearby water bodies (Biomagnification & Eutrophication).
9. Assignment of Project related to practical number eight.



10. Study Tour of minimum two days to study forest types and ecological groups.

**Books for Reference:**

1. Sharma P.D. (1993)-Ecology and Environment – Rastogi Publication, New Delhi.
2. Mishra R. - Ecology Work Book- Oxford and IBH, New Delhi.
3. Agarwal K.C. (1993)- Environmental Biology- Agro Botanical Publishers, Jodhapur.
4. Mishra K.C. (1992)- Manual of Plant Ecology – Oxford & IBH Publication, New delhi.
5. Kochar P.L (1980) – Plant Ecology – S. Nagin & Co., Jallandhar.
6. Kormandi E.J. (1984)- concept of Ecology- Printice Hall Ind., New Delhi.
7. Asthana R.K. (1998) – Environmental Problems and Solution- S.Chand & Co. Pvt, Ltd., New Delhi.
8. Verma P.S., V.K. Agarwal (1983) – Environmental Biology - S.Chand & Co. Pvt, Ltd., New Delhi.
9. Subramanyam N.S. A.V.S.S. Semburthy (2000)- Ecology- Narosa Publishing House, New Delhi.
10. Sharma D.P. (1993) – Ecology & Environmental Biology- Rastogi Publication, Meerut.
11. Nebel B.J. (1990) – Environmental Science – Printice Hall Indu. Pvt. Ltd. New Delhi.
12. Trivedi R.K. Etal (1987) – Practical Ecology – Anmol Publication, Jodhapur.
13. Rao K.S. (1971) – Fundamentals of Ecology – W.B. Saunders co. Philadelphia.
14. Shukla R.S. & Chandel P.S. (2000) – Plant Ecology – S.Chand & Co. Pvt. Ltd., New delhi.
15. Odum, E.P 1983. Basic Ecology, Saunders, Philadelphia.





## DEPARTMENT OF BOTANY

Ref.: E/E/Study tour


Date: 17.09.2017

### Report on Study Tour/Field Visit for the year 2017-18

Name of the Department	Botany							
Name of the Event Organized	Four Days Study Tour							
Title of the Event	Dandeli, Kulagi and Ulavi, Bakkal garden Sirsi forests							
Date of the Event Organized	14.09.2017 to 17.09.2017							
Name of the faculty accompanied	Dr.S.D.Payamalle, Miss. Afreen Maniyar, Miss.Sampatta Hegade							
Participants	V semester students							
No. of Participants	Total	39	Teachers	03	Students	35	Others	01
Objectives of the Event	<ol style="list-style-type: none"> <li>1. To study the Ecological Adaptations</li> <li>2. To study the Distribution of Plants</li> </ol>							
Outcome of the Event	<ol style="list-style-type: none"> <li>1. Students understood the Ecological Adaptations</li> <li>2. Students understood the Distribution of Plants</li> </ol>							
Photo Gallery	<div style="display: flex; justify-content: space-around;">   </div>							

  
**HOD**  
**HEAD**  
 Department of Botany  
 G. I. Bagewadi College, Nipani.

  
 IQAC Coordinator  
**Co-ordinator IQAC**  
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 Commerce College, NIPANI.



To,  
The Principal  
G I Bagewadi College  
Nipani

Date: 12-09-2017

Sir,

**Sub- Request to grant permission to carry out study tour for BSc V Sem Students**

With reference to the above and as per the RCU Belagavi Syllabus for BSc V Sem there is a study tour to study different vegetation and forest types. So we have decided to visit **Dandeli-Ulavi-Karwar-Gokarna- Murdeshwar-Jog falls Sirsi-Yana- Manjuni- Bakkal Garden- Sonda- SahsraLinga-Yellapur-Dharwad** for the study and collection. We request your kind permission for the same on 14<sup>th</sup> Sept to 17<sup>th</sup> Sept 2017.

**Thanking You**

  
Yours faithfully

**Department of Botany  
K.L.E's G. I. B. College, Nipani.**

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

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**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]

Ph: 08338-220116, 220416

Website: [www.klegibcollege.com](http://www.klegibcollege.com)

E-mail: [klegib\\_npn@yahoo.co.in](mailto:klegib_npn@yahoo.co.in)

Date : 12/09/2017

To,  
The Depot Manager  
K. S.R.T.C. Nipani Division  
Nipani.

Subject – To spare a bus to our college students

Sir,

With respect to the above mentioned subject we request you to spare bus and driver to our college students who are under taking the study tour as a part of their syllabus. We also request you to give concessional rate per kilometre.

Our schedule starts on 14<sup>th</sup> Sept to 17<sup>th</sup> Sept 2017, from Nipani- Belagavi- Khanapur- Dandeli-Ulavi-Karwar-Gokarna- Murdeshwar-Jog falls Sirsi-Yana- Manjguni- Bakkal Garden- Sonda- SahsraLinga-Yellapur-Dharwad-Belagavi-Nipani.

Thanking You

Yours Faithfully

  
Principal,

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



K.L.E. Society's  
G.I. Bagewadi Arts, Science, Commerce and PG College,  
Nipani-591237

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Ph: 08338-220116, 220416      Website: [www.kleibcollege.com](http://www.kleibcollege.com)      E-mail: [kleib\\_npa@yahoo.co.in](mailto:kleib_npa@yahoo.co.in)

Date : 12/09/2017

TO WHOM EVER IT MAY CONCERN

Subject – Requesting for permission to study the vegetation

Sir/madam,

With respect to the above mentioned subject as per the RCU Belagavi Syllabus the BSc V Sem students have to visit various vegetation/Industry for study Hence I request you to please give permission to study and do the needful.

Thanking You

Yours Faithfully



Principal,

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



Ref.: Bot/E./E/CR I/ Study Tour

Date:12.09.2017

## DEPARTMENT OF BOTANY

S.No	Year	Places visited	Class	Days	Staff in charge
1.	2017-18	Dandeli, Kulagi and Ulavi, Bakkal garden Sirsi forests	V sem	4 Day	Dr.S.D.Payamalle Miss. Afreen Maniyar Miss.Sampatta Hegade

Sl.No	V sem students' List 2017-18	Sl.No	Vsem students' List 2017-18
1	Achal Magadum	19	Pallavi Nagare
2	Akshay Havaladar	20	Shivani Patil
3	Ankita Magadum	21	Pragati Patil
4	Arati Bhalebhaladar	22	Reshma Chougule
5	Archana Kumbar	23	Rushikesh Majage
6	Ashwin Sabale	24	Saagar Mulla
7	Chaitanya Chavan	25	Shraddha Sangane
8	Harsha Shirkele	26	Shruti Chonchanavar
9	Varsha Jabade	27	Sonali Naik
10	Kalyani Sbitole	28	Tejashree Mangavate
11	Karishma Halkarni	29	Trupti Kamble
12	Kaveri Kumbar	30	Uzma Mulla
13	Laxmi Shetti	31	Varsha Kenawade
14	Mahadevi Bhanase	32	Vijaykumar Karoshi
15	Maruti Gurav	33	Yashodha Hunkumpi
16	Mayuri Jasud	34	Mezharani Patil
17	Nilam Patil	35	Prashant Hiremath
18	Pallavi Kumbar		

HOD

HEAD

Department of Botany

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.

Ref.: E:/E/Study tour

Date:

**DEPARTMENT OF BOTANY**  
Report on Study Tour/Field Visit for the year 2017-18

Name of the Department	Botany
Name of the Event Organized	One Day Study Visit to Hamidwada Sugar Factory
Title of the Event	Study visit to learn waste water treatment
Date of the Event Organized	21.09.2017
Name of the faculty accompanied	Smt. S.B.Patil , Miss. Sampatta Hegade
Participants	V <sup>th</sup> semester Botany Students
No. of Participants	Total 36 Teachers 02 Students 34 Others -
Objectives of the Event	To study the waste water treatment
Outcome of the Event	Students learnt water treatment method

Photo Gallery



*[Signature]*  
HOD  
HEAD

Department of Botany  
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.



## **DEPARTMENT OF BOTANY**

Date: 20/03/2017.

To,

The Principal,  
KLES G I Bagewadi College  
Nipani..

Sub: Seeking permission to visit the Hamidwada Sugar Factory reg.

Respected Sir,

With respect to above mentioned subject, as per the RCU Belagavi Botany V semester Syllabus, there is compulsory visit to study water effluent treatment for V semester. In this respect the department of Botany has decided to conduct study visit on 21<sup>st</sup> September 2017 at Hamidwada Sugar Factory. Hence, we request your kind permission to conduct the Visit.

Thanking You,

Yours Sincerely

  
**HOD**  
**HEAD**  
*Department of Botany*  
**G. I. Bagewadi College, Nipani.**

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



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Ph: 08338-220116, 220416

E-mail: [klegibnbotany@gmail.com](mailto:klegibnbotany@gmail.com)

Ref.: Bot/E:/E:/CR I/ Study Tour

Date: 21.09.2017

## DEPARTMENT OF BOTANY

S.No	Year	Places visited	Class	Days	No. of Students	Staff in charge
1.	2017-18	One Day study visit to Hamidwad	V sem	1 Day	34	Smt. S.B.Patil Miss Sampatta Hegade

Sl.No	VI sem students' List 2017-18	Sl.No	VI sem students' List 2017-18
1	Achal Magadum	19	Fallavi Nagave
2	Akshay Havaldar	20	Shivani Patil
3	Ankita Magadum	21	Pragati Patil
4	Arati Bhalebhaladar	22	Reshma Chougule
5	Archana Kumbhar	23	Rushikesh Majage
6	Ashwini Sabale	24	Sanobar Mulla
7	Chaitanya Chavan	25	Shraddha Sangane
8	Harsha Shirkoll	26	Shruti Chonchanavar
9	Varsha Jabade	27	Sonali Naik
10	Kalyani Shitole	28	Tejashree Mangavate
11	Karishma Halkarni	29	Trupti Kamble
12	Kaveri Kumbhar	30	Uzma Mulla
13	Laxmi Shetti	31	Varsha Kenawade
14	Mahadevi Bhanase	32	Vijaykumar Karoshi
15	Maruti Gurav	33	Yashodha Humakumari
16	Mayuri Jasud	34	Megharani Patil
17	Nilam Patil	35	
18	Pallavi Kumbhar		

HOD  
HEAD

Department of Botany  
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.

17-18 - 18

**Q. III Descriptive Answers**

21. From Unit 1: Cell Biology: 01 sub question. 1 X 10 = 10  
OR  
From Unit 2: Morphology of Chromosomes-01 sub question.
22. From Unit 3: Cell division: 01 sub question. 1 X 10 = 10  
OR  
From Unit 4: Genetics: 01 sub question.
23. From Unit 4: Genetics: 01 sub questions. 1 X 10 = 10  
OR  
From Unit 5: Evolution: 01 sub question.

**B.Sc VI semester**

**(w.e.f 2016 -17)**

**Botany paper -II**

**(Molecular Biology, Biotechnology & Immunology)**

**50 hrs**

**Objectives:** - Molecular Biology, Biotechnology and Immunology has some recent trends in the concerned fields. This will help students to pursue research in concerned fields.

**Unit 1: Nucleic Acids:** DNA & RNA, occurrence, types and chemical compositions,

Experimental evidences for DNA as genetic material. Structure of DNA, Replication, semiconservative method, RNA and types, post transcription changes.

**10 Hrs.**

**Unit 2: Gene Expression:** Gene concept, Genetic code & protein synthesis. Regulation of gene expression in prokaryotes & eukaryotes.

**08Hrs.**





### Unit 3: Recombinant DNA technology and Bioinformatics:

Enzyme, vector (plasmid pBR 322), marker gene, Steps of cloning technique, PCR and its application, Genomic DNA and cDNA library, Brief concept on Genomics and proteomics.

08 Hrs.

### Unit 4: Biotechnology and Genetic engineering of plants:

Basic concepts, principles and scope. Aims, strategies for development of transgenic plants (with suitable example). Agrobacterium-The natural genetic engineer. T-DNA and transposon mediated Gene tagging, intellectual Property rights, possible ecological risks and ethical concerns.

12Hrs.

### Unit 5: Microbial genetic manipulation and Immunology:

**Microbial genetic manipulation:** Bacterial transformation, selection of recombinant and transformants, genetic improvement of industrial microbes, nitrogen fixers & fermentation technology.

**Immunology:** Immuno-systems, Immunotechniques in Agriculture, ELISA method to detect Plant diseases & Monoclonal antibodies.

12 Hrs.

#### Practicals:

1. DNA estimation by DPA (diphenyl amine) method.
2. RNA estimation by orcinol method.
3. Extraction and estimation of protein from plant source.  
1) Salt precipitation method    2) solvent method
4. Culturing of Rhizobium -YEMA media.
5. Culturing of Azotobacteria-ASHBY'S media.
6. Demonstration of Electrophoresis technique
7. Agarose gel electrophoresis.
8. Demonstration and comparison of GM Plants with Non GM Plants (BT-Cotton, BT-Brinjal, BT Tomato).
9. Visit to Biotechnology Research Laboratory.



### Suggested Reading:

1. Cell & Molecular Biology -- By E.D.F. De Robertis -- ISE Publication
2. Basic Biotechnology -- Colin Katesledge & Bjorn Kristiansen -- Cambridge Uni. Press.
3. A Text Book of Biotechnology -- R.C. Dubey - S. Chand Publication
4. Cell Biology, Genetics, Molecular Biology, Evolution & Ecology -- P.S. Verma & V. K. Agarwal
5. Casida I.E. (1984)- Industrial Microbiology, Wiley Easterns, New Delhi.
6. Roitt- Immunology
7. Kubey - Immunology.
8. Fatima - Immunology

### **B.Sc. VI Semester**

### **Practical Paper-I)**

**(Molecular Biology, Biotechnology & Immunology)**

**Time: 4 Hours**

**Max Marks: 40**

- |   |          |
|---|----------|
| Q.1. Estimation of DNA/RNA from the given sample A.   | 10 Marks |
| Q.2. Estimation of Protein from the unknown sample B. | 10 Marks |
| Q.3. Identify and comment C and D.                    | 5 Marks  |
| Project report submission and Viva voce.              | 10 Marks |
| Journal.  | 05 Marks |



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Website: www.kleglbcollge.com

Ph: 08338-220116, 220416

E-mail: kleglbnbotany@gmail.com

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## DEPARTMENT OF BOTANY

Ref.: E/E/Study tour

Date: 26.03.2018

### Report on Study Tour/Field Visit for the year 2017-18


Name of the Department	Botany
Name of the Event Organized	One Day Study Visit to Research Lab
Title of the Event	Karnataka Institute for DNA Research Centre, Dharwad
Date of the Event Organized	21.03.2018
Name of the faculty accompanied	Smt. S.B.Patil , Miss. Sampatta Hegade
Participants	VI semester Botany Students
No. of Participants	Total 36 Teachers 02 Students 34 Others -
Objectives of the Event	1. To study the Research Laboratory 2. To observe the various biotechnological instruments
Outcome of the Event	1. Students observed the Research laboratory 2. Students could see the various Biotechnological Instruments
Photo Gallery	



  
HOD  
HEAD

Department of Botany  
G. L. Bagewadi College, Nipani.

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

  
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Commerce College, NIPANI.



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Ph: 08338-220116, 220416

E-mail: [klesibbotany@gmail.com](mailto:klesibbotany@gmail.com)

## DEPARTMENT OF BOTANY

Date: 20/03/2018

To,

The Principal,  
KLES G I Bagewadi College  
Nipani.

Sub: Seeking permission to conduct visit the Research Lab reg.

Respected Sir,

As per the RCU Belagavi BSc VI Sem Syllabus there is Biotechnology laboratory visit to observe various biotechnological instrument. Accordingly the department of botany has organised one day visit to Karnataka Institution for DNA Research Centre, Dharwad on 21<sup>st</sup> March 2018. Hence, I request you kindly permit us to conduct the visit. Faculty of the Botany department will accompany the students.

Thanking You

Yours Sincerely

  
HOD  
HEAD

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



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

Ref.: Bot/E:/E/CR I/ Study Tour

Date: 20.03.2018

## DEPARTMENT OF BOTANY

S.No	Year	Places visited	Class	Days	No. of Students	Staff in charge
1.	2017-18	Karnataka Institute for DNA Research Centre, Dharwad	VI sem	1 Day	34	Smt. S.B.Patil Miss Sampatta Hegade

Sl.No	VI sem students' List 2017-18	Sl.No	VI sem students' List 2017-18
1	Achal Magadum	19	Pallavi Nagave
2	Akshay Havalder	20	Shivani Patil
3	Ankita Magadum	21	Pragati Patil
4	Arati Bhalebhalder	22	Reshma Chougule
5	Archana Kumbar	23	Rushikesh Mafage
6	Ashwini Sabale	24	Sanobar Mulla
7	Chaitanya Chavan	25	Shraddha Sangane
8	Harsha Shirkoli	26	Shruti Chenchannavar
9	Varsha Jabade	27	Sonali Naik
10	Kalyani Shitole	28	Tejashree Mangavate
11	Karishma Halkarni	29	Trupti Kamble
12	Kaveri Kumbar	30	Uzma Mulla
13	Laxmi Shetti	31	Varsha Kenawade
14	Mahadevi Bhanase	32	Vijay kumar Karoshi
15	Maruti Gurav	33	Yashodha Hunakampi
16	Mayuri Jasud	34	Megharani Patil
17	Nilam Patil	35	
18	Pallavi Kumbar		

  
 HOD  
 HEAD

Department of Botany  
 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.

**RANI CHANNAMMA UNIVERSITY, BELAGAVI.**  
**Department of Post Graduate Studies and Research in Commerce**



**Syllabus of Master of Commerce**

**(With effect from Academic Year 2017-18)**

**IV Semester**



**M.Com Course Structure**

Sem	Paper Code	Course	IA Marks	Sem End Marks	Total	Hrs/ Week	Credits	
III	3.1	Business Research Methods	20	80	100	04	04	
	3.2	International Financial Management	20	80	100	04	04	
	<b>Group- A : Accounting and Finance</b>							
	3.3 A	Financial Markets and Institutions	20	80	100	04	04	
	3.4 A	Corporate Accounting	20	80	100	04	04	
	3.5 A	Accounting for Specialised Institutions	20	80	100	04	04	
	<b>Group- B: Cost Accounting</b>							
	3.3 B	Production and Operation Management	20	80	100	04	04	
	3.4 B	Cost Management	20	80	100	04	04	
	3.5 B	Cost Accounting Standards	20	80	100	04	04	
	<b>Group – C: Banking</b>							
	3.3 C	Bank Marketing	20	80	100	04	04	
	3.4 C	Banking in India	20	80	100	04	04	
	3.5 C	Management Accounting for Bankers	20	80	100	04	04	
	<b>Open Elective Course</b>							
	3.6	To be chosen from the other Department		20	80	100	04	04
		Open Elective Course meant for other Departments - Personal Financial Planning		20	80	100	04	04
	<b>Total Marks/Credits</b>			<b>120</b>	<b>480</b>	<b>600</b>	<b>24</b>	<b>24</b>
	IV	4.1	E-Commerce	20	80	100	04	04
		4.2	International Business	20	80	100	04	04
4.3		Project Report	50	50	100	04	04	
<b>Group A: Accounting and Finance</b>								
4.4 A		Security Analysis and Portfolio Management	20	80	100	04	04	
4.5 A		Innovations in Accounting	20	80	100	04	04	
4.6 A		Mutual Funds	20	80	100	04	04	
<b>Group- B: Cost Accounting</b>								
4.4 B		Techniques of Costing	20	80	100	04	04	
4.5 B		Strategic Cost Management	20	80	100	04	04	
4.6 B		Recent Developments in Cost Accounting	20	80	100	04	04	
<b>Group – C: Banking</b>								
4.4 C		Foreign Exchange and Risk Management	20	80	100	04	04	
4.5 C		Financial Management in Commercial Banks	20	80	100	04	04	
4.6 C	Fund Management in Commercial Banks	20	80	100	04	04		
<b>Total Marks/Credits</b>			<b>150</b>	<b>450</b>	<b>600</b>	<b>24</b>	<b>24</b>	



**“DIGITALIZATION IN BANKING SECTOR A STUDY OF  
SYNDICATE BANK G.I.BAGEWADI COLLEGE CAMPUS  
NIPANI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MR. VISHAL.G.MUJAWAR  
Register Number: MC161830**

**Project Guide:  
Prof.S.A.Deshpande**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**



KLE Society's

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

**DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE**

(Affiliated to Rani Channamma University, Belagavi)




**CERTIFICATE**

This is to certify that the project report entitled "DIGITALIZATION IN BANKING SECTOR A STUDY OF SYNDICATE BANK G.I.BAGEWADI COLLEGE CAMPUS NIPANI" is submitted to Rani Channamma University, Belagavi by MR.Visahl.G.Mujawar,in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2016-2017.

Prof. S.A.Deshpande

  
Guide

Prof. B.M Hiremath

  
Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale

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



**“A STUDY ON INVENTORY MANAGEMENT AT  
S.D.K.S.S.K.N. CHIKKODI ”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MR.SUDARSHAN .B. PATIL  
Register Number: MC168628**

**Project Guide:  
Prof.Smt.S.A.Deshapande**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON INVENTORY MANAGEMENT AT SHREE D.K.S.S.K.N CHIKKODI" is submitted to Rani Channamma University, Belagavi by Mr. Sudarshan .B. Patil ,in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof.Smt.S.A.Deshapande

Guide

Prof. B.M Hiremath

Co-ordinator  
**Co-ordinator**  
P. G. [M.Com.]

K. I. F. S. C. E. & C. O. L.

Dr.M.B.Kothale

**PRINCIPAL**

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



**"A STUDY ON CASH MANAGEMENT NERLI URBAN  
CO-OP.CREDIT SOCIETY LTD. NERLI"**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE**

**Academic Year 2017-18**

**Submitted By:**

**MISS. SHWETA.B.NANJANAVAR**

**Register Number: MC161827**

**Project Guide:**

**Prof. S.A.DESHPANDE**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

**KLE Society's**

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

**DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE**

**(Affiliated to Rani Channamma University, Belagavi)**



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON CASH MANAGEMENT NERLI URBAN CO-OP.CREDIT SOCIETY LTD. NERLI" is submitted to Rani Channamma University, Belagavi by Miss. SHWETA.B.NANJANNAVAR, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. S.A.DESHPANDE

Guide

Prof. B.M Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]

K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale

Principal  
**PRINCIPAL**

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



**“CONSUMER’S PERCEPTION TOWARDS DIRECT  
BENEFIT TRANSFER FOR LPG SCHEME: A STUDY OF  
CHIKODI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MISS. SHREEDEVI S MUNDE  
Register Number: MC161826**

**Project Guide:  
Prof. Priyanka Kamate**



**KLE Society's  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “**CONSUMER’S PERCEPTION TOWARDS DIRECT BENEFIT TRANSFER FOR LPG: A STUDY OF CHIKODI** ” is submitted to Rani Channamma University, Belagavi by Miss. Shreedevi S Munde in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-18.

Prof. Priyanka Kamate

Guide

Prof. B.M Hiremath

Co-ordinator

Co-ordinator

P. G. (M.Com)

G.I.B. College, Nipani.

Dr.M.B.Kothale

Principal

PRINCIPAL

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



**“A STUDY ON NON PERFORMING ASSETS AT SHREE  
MAHAVEER MULTIPURPOSE SOUHAARD SAHAKARI  
NIYAMIT, HUKKERI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Mr. SHIVARAJ. S. PATIL  
Register Number: MC161825**

**Project Guide:  
Prof. P. R. KAMATE**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**



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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON NON PERFORMING ASSETS AT SHREE MAHAVEER MULTIPURPOSE SOUHARD SAHAKARI NIYAMIT, HUKKERI" is submitted to Rani Channamma University, Belagavi by Mr. SHIVARAJ. S. PATIL, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof.P.R.Kamate

Guide

  
Prof. B.M Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
Dr.M.B.Kothale

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



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RANI CHENNAMMA UNIVERSITY  
BELAGAVI



A PROJECT REPORT ON  
"A STUDY ON INVESTORS PERCEPTION TOWARDS  
INVESTMENT AVENUES IN HUKKERI AREA"

*Course Code - 003*

SUBMITTED BY

MR. SHAMARAO NERLIKAR  
REG NO. MC161824

IN PARTIAL FULFILMENT OF  
MASTERS OF COMMERCE (M.COM)  
Academic Year 2017-18

UNDER GUIDANCE OF  
PROF. SANGEETA SANSUDDI



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G.I.BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG in Commerce, NIPPANI-591236

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G.I.BAGEWADI ARTS, SCIENCE AND COMMERCE  
COLLEGE

Department of post graduate studies in Commerce.  
(Affiliated to Rani Chennamma University, Belgavi)

BELGAVI



CERTIFICATE

This is to certify that the project report entitled "A STUDY ON INVESTORS PERCEPTION TOWARDS INVESTMENT AVENUES IN HUKKERI AREA" is submitted by Shamarao Nerlikar in partial fulfillment of the requirement for the award of degree of **Masters Of Commerce** in the Department of Commerce, K.L.E. SOCIETY's G.I.BAGEWADI OF ARTS, SCIENCE AND COMMERCE COLLEGE (Department of post graduation studies in commerce), Nipani affiliated to Rani Chennamma University, Belgavi, during the academic year 2017-18.

*Sansuddi*  
Prof. S.P.Sansuddi

Guide



*B.M. Hiremath*  
Prof. B.M.Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]

*M.B. Kothale*  
Dr. M.B.Kothale

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

**“A STUDY ON EMPLOYEES MOTIVATION –AT HLL  
LIFE CARE LTD, KANAGALA”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MISS. Sana.A.Kurbet  
Register Number: MC161823**

**Project Guide:  
Prof.P.R.Kamate**



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Department of PG Studies in Commerce, NIPANI - 591237**

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NIPANI**

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “A STUDY ON EMPLOYEE MOTIVATION” is submitted to Rani Channamma University, Belagavi by Miss.Sana.A.Kurber, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2016-2017.

Prof. P.R.Kamate

*Pansuddi*  
Guide

Prof. B.M.Hiremath

*B.M.Hiremath*  
Co-ordinator

**Co-ordinator**

**P. G. [M.Com.]**

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

Dr.M.B.Kothale

*M.B.Kothale*  
Principal

**PRINCIPAL**

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



**ANALYSIS OF FINANCIAL STATEMENT AT THE  
With Special Reference to  
The Shri.Shantisagar Credit Souhard Sahakari Bank Ltd.  
Shirguppi**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Miss. Samata V. Shetty.  
Register Number: MC161822**

**Internal Guide:  
Prof. Mr. C.V.KOPPAD.**

**External Guide:  
Mr. Anant Aianapure  
(Accountant)**



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Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “A Study on Analysis of Financial Statement” With Special Reference to The Shri.Shantisagar Credit Souhard Sahakari Bank Ltd. shirguppi. is submitted to Rani Channamma University, Belagavi by Miss. **Samata V. Shetty**, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. Shri. C.V.Koppad

Guide

Prof. B.M Hiremath

Co-ordinator

Co-ordinator

P. G. [M.Com.]

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

Dr. M.B. Kothale

Principal

PRINCIPAL

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



**“IMPACT OF GENERIC MEDICAL STORE ON LOCAL  
MEDICAL STORES”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

**Course Code - D 03**

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Mr. Sachin G. Vanjire  
Register Number: MC161821**

**Project Guide:  
Dr. C. V. Koppad**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**



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**NIPANI**

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "IMPACT OF GENERIC MEDICAL STORE ON LOCAL MEDICAL STORES" is submitted to Rani Channamma University, Belagavi by Mr. Sachin G. Vanjire, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Dr. C. V. Koppad

Guide



  
Prof. B.M Hiremath

Coordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
Dr.M.B.Kothale

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

**“A STUDY ON IMPACT OF GST  
On  
RETAILERS-ON NIPANI CITY”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE**

**Academic Year 2017-18**  
*Course Code - D03*

**Submitted By:**

**MISS. PALLAVI M.ANKALI**

**Register Number: MC161820**

**Project Guide:**

**DR. C.V.KOPPAD**

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**G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE**

**Department of PG Studies in Commerce,**

**NIPANI - 591237**



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NIPANI**

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “**A STUDY ON IMPACT OF GST ON RETAILERS- ON NIPANI CITY**” is submitted to Rani Channamma University, Belagavi by **Miss. Pallavi .M. Ankali** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
**Dr.C.V.Koppad**

Guide



  
**Prof. B.M Hiremath**

**Co-ordinator**  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
**Dr.M.B.Kothale**

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

**“A STUDY ON TAX PLANNING WITH REFERENCE TO  
GOVERNMENT AND NON-GOVERNMENT EMPLOYEES OF  
NIPANI CITY”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Mr. NILESH ANNASAB HAVALE  
(REG NO: MC161819)**

**Project Guide:  
Dr. C.V.KOPPAD**



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G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

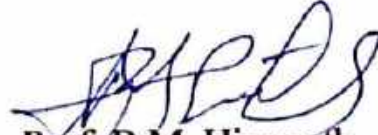
DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON TAX PLANNING WITH REFERENCE TO GOVERNMENT AND NON-GOVERNMENT EMPLOYEES OF NIPANI CITY" is submitted to Rani Channamma University, Belagavi by **Mr. Nilesh A. Havale**, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Dr. C. V. Koppad  
Guide

  
Prof. B.M. Hiremath  
Coordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
Dr. M. B. Kothale  
Principal  
PRINCIPAL  
G.I. Bagewadi Arts, Science &  
Commerce College, NIPANI.



**“CUSTOMER RELATIONSHIP MANAGEMENT  
AT S.K MOTORS NIPANI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MISS. Nikita Ravindra Bhusari  
Register Number: MC161818**

**Project Guide:  
Prof. B.M. Hiremath**



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Department of PG Studies in Commerce, NIPANI - 591237**

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NIPANI

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



CERTIFICATE

This is to certify that the project report entitled "CUSTOMER RELATIONSHIP MANAGEMENT AT S.K MOTORS NIPANI" is submitted to Rani Channamma University, Belagavi by Miss. Nikita Ravindra Bhusari in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. B.M. Hiremath

Guide

  
Prof. B.M Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
Dr.M.B.Kothale

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



**“A STUDY ON LOANS AND ADVANCES- AT ARIHANT  
URBAN SOU HARD CREDIT SAHAKARI LTD. HULLOLI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MISS. NidaAfreeen.J.Havaladar  
Register Number: MC161817**

**Project Guide:  
PROF.B.M.Hiremath**



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Department of PG Studies in Commerce, NIPANI – 591237**



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**NIPANI**


DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “A STUDY ON LOANS AND ADVANCES” is submitted to Rani Channamma University, Belagavi by Miss.NidaAfreen.J.Havaldar in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. B.M.Hiremath  
  
Guide

Prof. B.M Hiremath  
  
Co-ordinator  
**Co-ordinator**  
**P. G. [M.Com.]**  
**K.L.E's G. I. B. College, Nipani.**

Dr.M.B.Kothale  
  
Principal  
**PRINCIPAL**  
**G.I. Bagewadi Arts, Science & Commerce College, NIPANI.**



**TO STUDY ON“EMPLOYEE TRAINING”IN SHREE  
HALASIDHANATH SAHAKARI SAKHAR KARKHANA  
Ltd.NIPANI**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

**Course Code - D 03**

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Miss.Mayuri N. Jadhav  
Register Number: MC161815**

**Project Guide:  
Prof.B.M.HIREMATH**



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Department of PG Studies in Commerce, NIPANI - 591237**

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**NIPANI**

**DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE**

**(Affiliated to Rani Channamma University, Belagavi)**



**CERTIFICATE**

This is to certify that the project report entitled “EMPLOYEE TRAINING” is submitted to Rani Channamma University, Belagavi by Miss. Mayuri N. Jadhav in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. B.M.Hiremath

Guide

Prof. B.M Hiremath

Co-ordinator

Co-ordinator

P. G. [M.Com.]

K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale

Principal

PRINCIPAL

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



**"A STUDY ON RECRUITMENT AND SELECTION PROCESS IN SHREE  
HALASIDHANATH SSK LTD.NIPANI"**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:**

**Mr. MANJUNATH BHAJANTRI**

**Register Number: MC161814**

**Project Guide:**

**Prof.S.P.SANSUDDI**



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Department of PG Studies in Commerce, NIPANI - 591237**

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

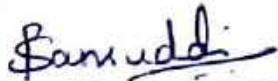
DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON RECRUITMENT AND SELECTION PROCESS IN SHREE HALASIDHANATH SSK LTD.NIPANI" is submitted to Rani Channamma University, Belagavi by Mr. MANJUNATH BHAJANTRI, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.



Prof.S.P.SANUSUDDI



Prof. B.M HIREMATH



Dr.M.B.KOTHALE

Guide

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]

K.L.E's G. I. B. College, Nipani.

Principal  
PRINCIPAL

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



**“A STUDY ON CUSTOMER SATISFACTION TOWARDS  
PATANJALI PRODUCTS AT 5 TOWN’S”(SANKESHWAR,  
NIPANI, CHIKODI, HUKKERI AND GHATAPRABHA.)**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MR. MAHANTESH. S. MARAGALI  
Register Number: MC161813**

**Project Guide:  
Prof(MIS) S. A. Sansuddi**



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G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “**A STUDY ON CUSTOMER SATISFACTION TOWARDS PATANJALI PRODUCTS AT 5 TOWN'S**”(SANKESHWAR, NIPANI, CHIKODI, HUKKERI AND GHATAPRABHA.) is submitted to Rani Channamma University, Belagavi by **MR. MAHANTESH S. MARAGALI**, in partial fulfillment of the requirement for the award of **Master of Commerce**, during the academic year 2017-2018.

Prof.(Miss) S.A.Sansuddi

*Sansuddi*  
Guide

Prof. B.M Hiremath

*B.M Hiremath*  
Co-ordinator

**Co-ordinator**

**P. G. [M.Com.]**

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

Dr.M.B.Kothale

*M.B.Kothale*  
Principal

**PRINCIPAL**

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



**“A STUDY ON WORKING CAPITAL MANAGEMENT  
AT SHREE HIRANYAKESHI SAHAKARI SAKKARE  
KARKANE NIYAMIT SANKESHWAR”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

**Course Code - D 03**

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:**

**MISS. LAXMI. A. CHOUGALA.**

**Register Number: MC161812**

**Project Guide:**

**Prof. S. P. SANSUDDI**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**



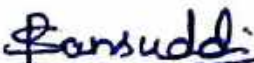
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**NIPANI**

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)




**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON WORKING CAPITAL MANAGEMENT AT HIRANYAKESHI SAHAKARI SAKKARE KARKANE NIYAMIT SANKESHWAR" is submitted to Rani Channamma University, Belagavi by Miss. **LAXMI. A. CHOUGALA** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. S.P. Sansuddi

Guide

Prof. B.M Hiremath  
  
Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale  
  
Principal  
PRINCIPAL  
G.I. Bagewadi Arts, Science &  
Commerce College, NIPANI



**“A STUDY ON CAPITAL BUDGETING AT SREE  
DOODHAGANGA KRISHNA SAHAKARI SAKKARE  
KARKHANE NIYAMIT, CHIKODI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Mr. KRISHNAKANT R. MALI  
Register Number: MC161811**

**Project Guide:  
Prof. SANGEETA P. SANSUDDI**



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G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**


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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON CAPITAL BUDGETING AT SHREE DOODHAGANGA KRISHNA SAHAKARI SAKKARE KARKHANE NIYAMIT, CHIKODI" is submitted to Rani Channamma University, Belagavi by Mr. Krishnakant R. Mali in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. S. P. Sansuddi

  
Prof. B.M. Hiremath

  
Dr. M.B. Kothale

Guide

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

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



**“A CASE STUDY ON NERLI URBAN CO-OPERATIVE  
CREDIT SOCIETY LTD, NERLI.”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE**

**Academic Year 2017-18**

**Submitted By:**

**MISS. KAVERI. A. LABBI.**

**Register Number: MC161810**

**Project Guide:**

**Prof. Laxman .R. Mali**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI – 591237**

**KLE Society's**

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

**DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE**

**(Affiliated to Rani Channamma University, Belagavi)**



**CERTIFICATE**

This is to certify that the project report entitled "A CASE STUDY ON PERFORMANCE OF NERLI URBAN CO-OPERATIVE CREDIT SOCIETY LTD, NERLI." is submitted to Rani Channamma University, Belagavi by Miss. **KAVERI A. LABBI** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. L.R.Mali

*L.R.Mali*  
Guide

Prof. B.M Hiremath

*B.M Hiremath*  
Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale

*M.B.Kothale*  
Principal  
PRINCIPAL  
G.I. Bagewadi Arts, Science &  
Commerce College, NIPANI.



**“COST CUTTING TECHNIQUES TOWARDS COST  
MANAGEMENT”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:**

**MISS. KAVERI. S. HEDDURSHETTI.**

**Register Number: MC161809**

**Project Guide:**

**Prof. L. R. Mali.**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON COST CUTTING TECHNIQUES TOWARDS COST MANAGEMENT" is submitted to Rani Channamma University, Belagavi by Miss. **KAVERI S. HEDDURSHETTI** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

Prof. L.R.Mali

*L.R.Mali*

Guide

Prof. B.M Hiremath

*B.M Hiremath*

Co-ordinator

Co-ordinator

P. G. [M.Com.]

K.L.E's G. I. B. College, Nipani.

Dr.M.B.Kothale

*M.B.Kothale*

Principal

PRINCIPAL

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



**“Role of Microfinance by Microfinance Institutions in Sustainable Rural Development”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:**

**Miss. Kashavva. A. Shiragannavar.**

**Register Number: MC161808**

**Project Guide:**

**Prof. Laxman. R .Mali**



**KLE SOCIETY'S  
G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE  
COLLEGE**

**Department of PG Studies in Commerce, NIPANI - 591237**



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


DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "**Role of Microfinance by Microfinance Institutions in Sustainable Rural Development**", submitted to Rani Channamma University, Belagavi by Miss. **Kashavva. A. Shiragannavar**, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. Shri. L.R.Mali

Guide

  
Prof. B.M.Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
KLE's G. I. B. College, Nipani.

  
Dr. M.B.Kothale

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



**“A STUDY ON EMPLOYEE JOB SATISFACTION IN  
HALASIDHANATH SAHAKARI SAKHAR KARKHANA LTD  
NIPANI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE**

**Academic Year 2017-18**

**Submitted By:**

**MISS.KALAVATI .R. DEVARAKKI**

**Register Number: MC161807**

**Project Guide:**

**Prof. LAXMAN .R. MALI**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE**

**Department of PG Studies in Commerce, NIPANI - 591237**

**KLE Society's**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE

(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON EMPLOYEES JOB SATISFACTION IN HALASIDHANATH SAHAKARI SAKHAR KARKHANA LTD NIPANI "is submitted to Rani Channamma University, Belagavi by Miss. **KALAVATI .R. DEVARAKKI**, in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. L.R. Mali

Guide

  
Prof. B.M. Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
KLE's G. I. B. College, Nipani.

  
Dr.M.B.Kothale

Principal  
PRINCIPAL  
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Commerce College, NIPANI.



**“A STUDY ON RATIO ANALYSIS AT  
SHREEHALASIDHANATH SAHAKARI SAKAR  
KARKANA LTD. NIPANI”**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

**Course Code - D03**

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:**

**MISS. ARATI A. VANTAGE**

**Register Number: MC161805**

**Project Guide:**

**Prof. K. S. POWAR**



**KLE SOCIETY'S**

**G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON RATIO ANALYSES AT SHREEHALASIDHANATH SAHAKARI SAKARB KARKANA LTD. NIPANI." is submitted to Rani Channamma University, Belagavi by Miss. **ARATI. A. VANTAGE** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-2018.

  
Prof. K.S. Powar

Guide

  
Prof. B.M Hiremath

Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
K.L.E's G. I. B. College, Nipani.

  
Dr. M.B. Kothale

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



**“A STUDY ON INVENTORY MANAGEMENT”  
AT HIRANYAKESHI SAHAKARI SAKKARE  
KARAKHANE NIYMIT, SANKESHWAR**



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course Code - D03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
MISS. ARPANA .B. KURANI  
Register Number: MC161804**

**Project Guide:  
Prof. KISHORI POWAR**



**KLE Society's  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**

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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled "INVENTORY MANAGEMENT" FOR HIRANYAKESHI SAHAKARI SAKKARE KARAKHANE NIYMIT, SANKESHWAR is submitted to Rani Channamma University, Belagavi by **Miss. Arpana B. Kurani** in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2017-18.

  
Prof. Kishori Powar

Guide



  
Prof. B.M Hiremath

Co-ordinator  
**Co-ordinator**  
**P. G. [M.Com.]**  
**K.L.E's G. I. B. College, Nipani.**

  
Dr.M.B.Kothale

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

# “IMPACT OF DEMONETIZATION ON CHIKKODI CITY”



**PROJECT REPORT SUBMITTED TO THE RANI CHANNAMMA  
UNIVERSITY, BELAGAVI**

*Course code - D 03*

**IN PARTIAL FULFILLMENT OF THE AWARD OF  
MASTER OF COMMERCE  
Academic Year 2017-18**

**Submitted By:  
Mr. ANIL MAHADEV BELLE  
Register Number: MC161802**

**Project Guide:  
Prof. [Miss] KISHORI.S.POWAR**



**KLE SOCIETY'S  
G. I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE  
Department of PG Studies in Commerce, NIPANI - 591237**



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

DEPARTMENT OF POST GRADUATE STUDIES IN COMMERCE  
(Affiliated to Rani Channamma University, Belagavi)



**CERTIFICATE**

This is to certify that the project report entitled “IMPACT OF DEMONETIZATION ON CHIKKODI CITY” is submitted to Rani Channamma University, Belagavi by Mr. ANIL MAHADEV. BELLE in partial fulfillment of the requirement for the award of degree of **Master of Commerce**, during the academic year 2016-2017.

Prof. [Miss] Kishori.S.Powar

Guide

Prof. B.M Hiremath

Co-ordinator  
Co-ordinator

P. G. [M.Com.]

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

Dr.M.B.Kothale

Principal  
PRINCIPAL

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



PROJECT REPORT

ON

“A STUDY ON CUSTOMER SATISFACTION TOWARDS RELIANCE JIO”



Submitted to

**RANI CHANNAMMA UNIVERSITY BELGAVI**



IN THE PARTIAL FULFILMENT OF  
MASTER OF COMMERCE

ACCADEMIC SESSION (2018-2019)

*Course Code - D03*

PROJECT GUIDE

Prof. KISHORI POWAR

KLE's GIB PG CENTER NIPANI

SUBMITTED BY

MR. AKASH U. RAJPUT

M.COM (MC161801)



**KLE's SOCIETY G.I.BAGEWADI ARTS, COMMERCE, SCIENCE AND  
PG COLLEGE NIPANI-591237**

Department of Post-Graduation Studies in Commerce.

(Affiliated to Rani Channamma University, Belgavi)

**KLE's SOCIETY G.I.BAGEWADI ARTS, COMMERCE, SCIENCE AND  
PG COLLEGE NIPANI-591237**

Department of Post-Graduation Studies in Commerce.  
(Affiliated to Rani Channamma University, Belgavi)



# CERTIFICATE

This is to certify that Mr. AKASH UDHAYSING RAJPUT a student of KLE's SOCIETY G.I.BAGEWADI ARTS, COMMERCE, SCIENCE AND PG COLLEGE NIPANI-591237. Has successfully completed his project report on "A STUDY ON CUSTOMER SATISFACTION TOWARDS RELIANCE JIO" under my guidance in partial fulfillment of requirement for the award of degree of Master of Commerce in the department of commerce. This is an original work of his own and has not been carried out by any earlier.



Prof. Kishori Powar  
Faculty Guide



Prof. B.M. Hiremath  
Co-ordinator  
Co-ordinator  
P. G. [M.Com.]  
KLE's G. I. B. College, Nipani.



Dr. M.B. Kothale  
Principal  
PRINCIPAL  
G.I. Bagewadi Arts, Science &  
Commerce College, NIPANI.



2017-18

  
**RAJANNA CHANNAMMA UNIVERSITY, BELAGAVI**  
**Department of Mathematics**

**Syllabus**  
**for**  
**Master of Science in Mathematics**  
**III & IV Semester**  
**(with effect from 2014 – 15)**



**Mathematics**  
**Choice based credit system (CBCS)**  
**Course structure**

S. No.	Paper & Title	Credit	No. of Hrs/week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	IA Marks Theory/ Practical	Marks at the Exams	Total Marks
<b>III Semester</b>							
3.1	Measure Theory and Integration	4	4	3 Hrs	20	80	100
3.2	Discrete Mathematical Structures	4	4	3 Hrs	20	80	100
3.3	Differentiable Geometry	4	4	3 Hrs	20	80	100
3.4	Numerical Analysis	4	4	3 Hrs	20	80	100
3.5	Algebraic Topology	4	4	3 Hrs	20	80	100
3.6	Open Elective Course – II a. Statistics & Quantitative Techniques b. Optimization Techniques	4	4	3 Hrs	20	80	100
<b>IV Semester</b>							
4.1	Functional Analysis	4	4	3 Hrs	20	80	100
4.2	Probability Theory	4	4	3 Hrs	20	80	100
4.3	Differential Manifolds	4	4	3 Hrs	20	80	100
4.4	Optional / Specialization I. Fluid Mechanics II. Number Theory and Cryptology III. Commutative Algebra IV. Mathematical Physics V. Galois Theory VI. Computational Complexity Theory	4	4	3 Hrs	20	80	100



4.5	Optional / Specialization	4	4	3 Hrs	20	80	100
	I. Mathematical Finance						
	II. Operations Research						
	III. Graph Theory						
	IV. Fourier Analysis						
	V. Banach Algebra						
	VI. Mathematical Modeling						
4.6	Project	4			The candidate shall submit a dissertation carrying 80 marks and appear for viva-voce carrying 20 marks		100
	Total	96					2400



**KANI CHANNAMMA UNIVERSITY**

**BELAGAVI-590 014**



**A PROJECT REPORT ON**

**"NETWORK TOPOLOGY AND APPLICATIONS"**

**SUBMITTED BY**

**MISS SUPRIYA S. KARAMBALE**

**Reg. No: MT161215**

**MISS KAJAL. P. CHALAKE**

**Reg. No: MT161202**

**MISS SHRUTI A. JUMMAI**

**Reg. No.: MT161213**

**course code - D120**

**IN PARTIAL FULFILMENT OF**

**MASTERS OF SCIENCE (M.Sc. Mathematics)**

**Academic Year 2017-18**

***Under Guidance of***

**DR.(SMT). M. M. SHANKRIKOPP  
M.Sc., PhD**

**PROF. MR. SAMMED A. CHOUGALE  
M. Sc., B. Ed.**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**

**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,  
NIPANI-591237**

**K. L. E. Society's**  
**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE**  
**NIPANI-591237**

**'College with Potential for Excellence'**  
**(RE-ACCREDITED AT 'A' LEVEL BY NAAC)**



*Certificate*

This is to Certify that project carried out by **MISS SUPRIYA S. KARAMBALE** Reg No: MT161215, **MISS KAJAL.P. CHALAKE** Reg No: MT161202, **MISS SHRUTI A. JUMMAI** Reg No: MT161213 bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University Belagavi during the year 2017-18. It is certified that all correction or suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

*[Signature]* 27/06/18

**Mr. S. A. CHOUGALE**  
**Guide**

*[Signature]*

**Dr. M.M. SHANKRIKOP**  
**Co-ordinator**  
**P. G. [M.Sc., Maths]**

**K.L.E's G. I. B. College, Nipani.**

*[Signature]*

**Dr. M. B. KOTHALE**  
**Principal**

**G.I. Bagewadi Arts, Science**  
**College, Nipani**

**Examiner Name and Sign**

1. *[Signature]*  
14.07.18

2. *[Signature]*



**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON**  
**“APPLICATIONS OF FOURIER SERIES AND FOURIER**  
**TRANSFORMATIONS”**

**SUBMITTED BY**

**MISS LAXMI MANTRANNAVAR**  
**Reg. No: MT161203**

**MISS DANAMMA GANIGER**  
**Reg. No: MT161201**

**MISS VIDYA HANCHANAL**  
**Reg. No: MT161219**

**IN PARTIAL FULFILMENT OF**  
**MASTERS OF SCIENCE (M.Sc. Mathematics)**

**Academic Year 2017-18**

**course code – D120**

***Under Guidance of***

**DR.(SMT). M. M. SHANKRIKOPP**  
**M.Sc., PhD**

**PROF. MR. JINENDRA N. MAGADUM**  
**M. Sc., B. Ed**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**  
**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE, NIPANI-**  
**591237.**

**K. L. E. Society's**  
**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE**

**NIPANI-591237**

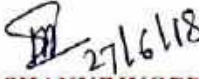
**'College with Potential for Excellence'**  
**(RE-ACCREDITED AT 'A' LEVEL BY NAAC)**



***Certificate***


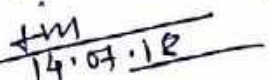
This is to Certify that project carried out by **MISS LAXMI D MANTRANNAVAR** Reg No: MT161203, **MISS DANAMMA M. GANIGER** Reg No: MT161201 **MISS VIDYA C HANCHANAL** Reg No: MT161219, bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University, Belagavi during the year 2017-18. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
**MR. J. N. MAGADUM**  
Guide

  
**Dr. M.M. SHANKRIKOPP**  
Co-ordinator  
P. G. [M.Sc., Maths]  
K.L.E's G. I. B. College, Nipani

  
**Dr. M. B. KOTHALE**  
Principal  
G.I. Bagewadi Arts, Science  
College, Nipani

**Examiner Name and Sign**

-   
14/7/2018
-   
14.07.18

**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON**  
**“NUMBER THEORY AND IT'S APPLICATIONS”**

**SUBMITTED BY**

**MISS POOJA HUDDAR**

**Reg. No: MT161205**

**MISS POOJA MANAGAVE**

**Reg. No: MT161206**

**MISS PRIYANKA KABADI**

**Reg. No.: MT161207**

**course code – D120**

**IN PARTIAL FULFILMENT OF**  
**MASTERS OF SCIENCE (M.Sc. Mathematics)**

**Academic Year 2017-18**

***Under Guidance of***

**DR.(SMT). M. M. SHANKRIKOPP**

**M.Sc., Ph.D.**

**PROF. MISS. S. K. PATIL**

**M. Sc., B. Ed.**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**

**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,**

**NIPANI-591237.**

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Certificate

This is to Certify that project carried out by MISS POOJA HUDDAR Reg No: MT161205, MISS POOJA MANAGAVE Reg No: MT161206, MISS PRIYANKA KABADI Reg No: MT161207 bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University Belagavi during the year 2017-18. It is certified that all correction or suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

*Patil*  
27/06/2018  
MISS S. K. PATIL  
Guide

*Shankrikop*  
27/6/18  
Dr. M.M. SHANKRIKOP  
Co-ordinator  
P. G. [M.Sc., Maths]  
K.L.E's G. I. B. College, Nipani.

*Kothale*  
Dr. M. B. KOTHALE  
PRINCIPAL  
G.I. Bagewadi Arts, Science  
& Commerce College, Nipani

**Examiner Name and Sign**

- Patil*  
27/6/18
- Patil*  
14.07.18

**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON**  
**“RING THEORY AND ITS APPLICATIONS”**

**SUBMITTED BY**

**MISS PRIYANKA P. SANKESHWARI      MISS POOJA B. CHOUGALA**

**Reg. No: MT161208**

**Reg. No: MT161204**

**MISS TEJASWINI P.KULKARNI**

**Reg. No.: MT161217**

**course code - D120**

**IN PARTIAL FULFILMENT OF**  
**MASTERS OF SCIENCE (M.Sc. Mathematics)**

**Academic Year 2017-18**

*Under Guidance of*

**DR.(SMT). M. M. SHANKRIKOPP**

**M.Sc., PhD**

**PROF. MISS.VINIYA U. KHOT**

**M. Sc.**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**

**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,**

**NIPANI-591237.**

K. L. E. Society's

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

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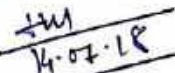

This is to Certify that project carried out by **MISS PRIYANKA P. SANKESHWARI** Reg No: MT161208, **MISS POOJA B. CHOUGALA** Reg No: MT161204, **MISS TEJASWINI P. KULKARNI** Reg No: MT161217 bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University, Belagavi during the year 2017-18. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
**MISS V. U. Khot**  
Guide

  
**Dr. M. M. Shankrikopp**  
Coordinator  
P. G. [M.Sc., Maths]  
K.L.E's G. I. B. College, Nipani

  
**Dr. M. B. Kothale**  
Principal  
G.I. Bagewadi Arts, Science  
& Commerce College, Nipani

**Examiner Name and Sign**

-   
14.07.18
-   
14/7/2018

**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON**  
**"LAPLACE TRANSFORMATION AND IT'S APPLICATIONS"**

**SUBMITTED BY**

**MISS SATAVVA B. MAYANNAWAR**

**Reg. No: MT161210**

**MISS SHRAVANI D. PATIL**

**Reg. No: MT161211**

**MISS SHRUTI B. PATIL**

**Reg. No.: MT161214**

**course code - D120**

**IN PARTIAL FULFILMENT OF**  
**MASTERS OF SCIENCE (M.Sc. Mathematics)**

**Academic Year 2017-18**

***Under Guidance of***

**DR.(SMT). M. M. SHANKRIKOPP**  
**M.Sc., Ph.D.**

**PROF. MISS G. L. KARAGUPPI**  
**M. Sc., B. Ed.**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**

**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,**

**NIPANI-591237.**

K. L. E. Society's

G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE

NIPANI-591237

'College with Potential for Excellence'

(RE-ACCREDITED AT 'A' LEVEL BY NAAC)



Certificate

This is to Certify that project carried out by MISS SATAVVA B. MAYANNAWAR , Reg. No: MT161210, MISS SHRAVANI D. PATIL, Reg. No: MT161211 AND MISS SHRUTI B. PATIL Reg. No.: MT161214

bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University Belagavi during the year 2017-18. It is certified that all correction or suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

MISS G. L. KARAGUPPI

Guide

Dr. M.M. SHANKRIKOP

Co-ordinator

P. G. [M.Sc., Maths]

Dr. M. B. KUCHALE

PRINCIPAL

G.I. Bagewadi Arts, Science

Examiner Name and Sign

1. 14.02.18

2. 14/7/2018



**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON**  
**“APPLICATIONS OF DIFFERENTIAL EQUATIONS”**

**SUBMITTED BY**

**MR. SURESH PATIL**  
**Reg. No: MT161216**

**MR. UTTAM DODAMANI**  
**Reg. No: MT161218**

*course code - D120*

**IN PARTIAL FULFILMENT OF**  
**MASTERS OF SCIENCE (M.Sc. Mathematics)**  
**Academic Year 2017-18**

*Under Guidance of*

**DR.(SMT). M. M. SHANKRIKOPP**  
**M.Sc., PhD**

**PROF. MR. JINENDRA N. MAGADUM**  
**M. Sc., B. Ed**

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**  
**KLE'S G I BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE, NIPANI-**  
**591237.**

**K. L. E. Society's**  
**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE**  
**NIPANI-591237**

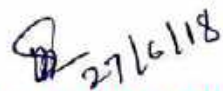
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***Certificate***



This is to Certify that project carried out by **MR SURESH PATIL** Reg No: MT161216, **MR UTTAM DODAMANI** Reg No: MT161218 bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University, Belagavi during the year 2017-18. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
**MR. J. N. MAGADUM**  
**Guide**

  
**Dr. M.M. SHANKRIKOPP**  
**Co-ordinator**  
**P. G. [M.Sc., Maths]**

  
**Dr. M. B. KOTHALE**  
**PRINCIPAL**

**Examiner Name and Sign**

-   
14/7/2018
-   
14.07.18

**K.L.E's G. I. B. College, Nipani**  
**G.I. Bagewadi Arts, Science & Commerce College, Nipani**

**RANI CHANNAMMA UNIVERSITY**  
**BELAGAVI-590 014**



**A PROJECT REPORT ON  
"APPLICATIONS OF DISCRETE MATHEMATICS"**

**SUBMITTED BY**

**MISS ROHINI A. SHIRADAWDE**  
Reg.No: MT161209

**MISS SHREEYA T. DIWANAJI**  
Reg.No: MT161212

**MISS ZOHRA A. PATEL**  
Reg.No: MT161220

**IN PARTIAL FULFILMENT OF  
MASTERS OF SCIENCE (M.Sc. Mathematics)**

Academic Year 2017-18  
**COURSE CODE - D120**

*Under Guidance of*

**DR.(SMT). M. M. SHANKRIKOPP**  
M. Sc., PhD

**PROF. MISS SONALI K. PATIL**  
M. Sc.

**SUBMITTED TO**



**DEPARTMENT OF MATHEMATICS**  
**KLE'S G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,**  
**NIPANI-591237.**

**K. L. E. Society's**  
**G. I. BAGEWADI ARTS, SCIENCE AND COMMERCE COLLEGE,**  
**NIPANI-591237.**

'College with Potential for Excellence'  
(RE-ACCREDITED AT 'A' LEVEL BY NAAC)



*Certificate*

This is to Certify that the project carried out by **MISS ROHINI A. SHIRADAWADE** Reg No: MT161209, **MISS SHREEYA T. DIWANAJI** Reg No: MT161212 and **MISS ZOHIRA A. PATEL** Reg No: MT161220 bonafide students of G. I. Bagewadi College, PG center Nipani, in partial fulfillment for the award of **Master of Science in Mathematics** of the Rani Channamma University, Belagavi during the year 2017-18. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

*Patil*  
*27/06/2018*  
**Miss S. K. Patil**  
**Guide**

*Shankrikopp*  
*26/6/18*  
**Dr. M.M. Shankrikopp**  
**Co-ordinator**  
**P. G. [M.Sc., Maths]**

*M. B. Kothale*  
**Dr. M. B. Kothale**  
**PRINCIPAL**

**Examiner Name and Sign**

1. *Patil*  
*14.07.18*
2. *Shankrikopp*

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

18-19

**B.Sc II Semester Syllabus**

**ZOOLOGY (Optional) 2017-18 Onwards**

Total Marks-80

Total Teaching-50hrs.

**Biology of Chordates**

**UNIT-I**

**Chordates: General characters and classification.**

8 hrs

1. Sub-phylum: Hemichordata- External Characters & Digestive system of Balanoglossus.
2. Sub-phylum: Urochordata- External Characters & Retrogressive metamorphosis in Herdmania.
3. Subphylum: Cephalochordata- External Characters & feeding mechanism in Branchiostoma.
4. Cyclostomata: External Characters & general organisation of Petromyzon & Myxine (Hagfish/Slime).

**UNIT-II**

**Pisces: General characters & Classification of Pisces up to orders with examples. General characters of Chondrichthyes and Osteichthyes. Type study Scoliodon- External Characters, Digestive system, Reproductive system and Fish migration.**

**Amphibia: General characters & classification up to orders with Examples. Type study Frog- External characters, Digestive system, Circulatory & Reproductive system. Axoloti larva & its significance.**

5hrs

**UNIT-III**

**Reptilia: General characters & classification up to orders with Examples. Type study Calotes- External characters, Digestive system, Circulatory & Reproductive system. Indian poisonous & non-poisonous snakes.**

5hrs

**Aves - General characters & Classification up to orders with Examples Type study Pigeon- External characters, Digestive System, Respiratory & Reproductive system. Bird migration, Flight adaptations, Flightless birds, Beak & Feet modification.**

10hrs



## UNIT-IV

**Mammalia:** General characters & classification up to orders with 6hrs  
Examples Type study Rat-Externals characters, Digestive System, Circulatory, Nervous, Excretory & Reproductive Systems.

### **Comparative Anatomy:**

Origin, development & structure of Heart, Brain 12 hrs  
and integument in Fishes, Amphibians, Reptiles, Aves and Mammals.

## PRACTICALS

**Total Practicals -12**

1. Classification of Urochordata, Cephalochordata, Cyclostomes 01  
Examples: Balanoglossus, Herdmania, Branchiostoma, Peteromyzon.
2. Classification of Fishes - 01  
Examples: Scoliodon, Pristis, Sphyrna, Catla catla, Labeo rohita, Hippocampus, Eel, Exocoetus & Synaptura.
3. Classification of Amphibia - 01  
Examples: Frog, Toad, Ichthyophis, Ambystoma, Axoloff Larva & Rhacophorus.
4. Classification of Reptilia- 01  
Examples: Calotes, Hemidactylus, Chaemoleon, Mabuya Draco, Naja naja, Python, Viper, Turtle and Crocodile.
5. Classification of Aves - 01  
Examples: Psittacula, Owl, Woodpecker, Pigeon and Passer domesticus.
6. Classification of Mammalia - 01  
Examples: Sorex, Bat, Loris, Pangolin, Hystrix, Herpetes & Funambulus.
7. Study of Comparative Anatomy:  
Heart and Brain in Fishes, Amphibians, Reptiles, Aves and Mammals 02
8. Explanation & Demonstration in Bony fish/Shark. 04
  - a). External characters
  - b). Digestive system
  - c). Reproductive system
  - d). Mounting of Brain



**NOTE:**

1. With the help of Charts/Models/Diagrams/Printouts & Xerox Sheets are used in practical's demonstration.
2. As per UGC guidelines Only one species to be demonstrated by Faculty & students should not do any dissection.
3. Students are supposed to draw neat labelled diagrams & write The explanation in their journal.
4. In practical examination question no I & II are put Charts/ Models/ Diagrams/ Printouts & Xerox Sheets of the system- Students has to identify & write the explanation in their Examination paper.
5. Compulsory Study Tour/ Field visit to study Animal diversity. (Submission of project report carries- 5 marks).

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**REFERENCE BOOKS**

1. Modern Text Book of Zoology Vertebrate-R.L.Kotpal.
2. Chordata – Dhami & Dhami.
3. Vertebrate- Majapuria.
4. Functional Organization of Vertebrate-- H Nigam & R.Sobti- Shoban Lal Nagin Chand & Co.
5. A manual of Zoology Vertebrates- M.Ekambarnath Ayyar & Swaminathan Ayyar S. Vishwanath Publisher.
6. The Vertebrates Pisces to Mammalia, Hyman L.H. McGraw Hill Co
7. The Vertebrates – Hyman et al.
8. Text Book of Zoology – Parker T.J. & Haswell W.A. Macmillan Co. London.
9. Biology of Chordates by Dr Harish .C. Nigam.Vishal Publication Lucknow.





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.Klegibnnp.edu.in](http://WWW.Klegibnnp.edu.in) E-mail: [klegib\\_npn@yahoo.co.in](mailto:klegib_npn@yahoo.co.in) Ph: 08338-220116

Ref. No.: GIB/

Date: 01/04/2018

**DEPARTMENT OF ZOOLOGY**

**Field Visit – Bird Watching**

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 Agriculture Research Station, Nipani on 02/04/2018 at early morning 6.30am for the study of different varieties of birds for B.Sc. II Sem students. 60 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

H O D

Department of Zoology  
G.I. Bagewadi NIPANI

Principal  
PRINCIPAL

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





**Animal Diversity-Bird watching (Field Visit)****2017-18****B.Sc II Sem**

<b>Sr.No</b>	<b>Roll.No</b>	<b>Name of the student</b>
1	114	Abhinandan Kothapure
2	115	Abhishek Magadum
3	116	Aishwarya Killedar
4	117	Aishwarya Punde
5	118	Akshay Magadum
6	119	Anil Bhingare
7	120	Chetana Belavi
8	121	Chinmayi Indi
9	122	Daksha Patel
10	123	Gurunath Arekar
11	124	Janhavi Bhatale
12	125	Kajal Bhoite
13	126	Kamartaj Khanapure
14	127	Kashinath Savantre
15	128	Kenchappa Nasalapure
16	129	Madhuri Bhivase
17	130	Massum Panwale
18	131	Meenakshi Gurav
19	132	Megha Sumbad
20	133	Nandini Shirganve
21	134	Neha Kadakne
22	135	Neha Patil
23	136	Nikita Havale
24	137	Nikita Magdum
25	138	Parshwajeet Patil
26	139	Pavan Payamale
27	140	Pooja Kesarkar
28	141	Prajakta Patil
29	142	Prajakta Bachne
30	143	Pranali Tarale
31	144	Pranjali Potadar
32	145	Prapti Patil
33	146	Prathamesh Marinakati
34	147	Pratiksha Suryavanshi
35	148	Praveen Chougala
36	149	Prithviraj Narayankar
37	150	Priyanka Patil
38	151	Priyanka Palkar
39	152	Pushpadant Upadhye
40	153	Rachana Tandale
41	154	Ramiz Raza Makandar
42	155	Ravichandra Madhbare
43	156	Rohini Tharapathi
44	157	Rutuja Patil
45	158	Sabeel Makandar
46	159	Sachin Badkar



47	160	Sachin Kurni
48	161	Samiksha Gebise
49	162	Sana Soudagar
50	163	Saniya Awate
51	164	Sanjeevni Hasure
52	165	Sanket Jadhav
53	166	Santosh Adake
54	167	Sayam Havale
55	168	Seema Dattawade
56	169	Shahida Desai
57	170	Shradha Kooge
58	171	Shubham Kodane
59	172	Soujanya Kamate
60	173	Sourabh Pujari
61	174	Sumit Chougala
62	175	Swati Tawadare
63	176	Umesh Pujari
64	177	Yogesh Pujari
65	178	Zainabi Langoti

*ws*  
Department of Zoology  
L. Bagewadi College, Nipani.





K.L.E. Society's

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

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Affiliated to Rani Channamma University, Belagavi, Karnataka, India

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

Ref. No.: GIB/

Date: 02/04/2018

**REPORT ON - "BIRD WATCHING"**

Name of the Department	Zoology
Name of the Event Organized	Field visit
Title of the Event	"Bird watching"
Date of the Event Organized	02.04.2018
Class	B.Sc. II Sem
Field visit location	ARS Campus, Nipani
Name of the Convener	Dr. V.R.Naik
Participants	62
No. of Participants	Total 62 Teachers 02 Students 60
Name of the Expert with Designation	Miss. S.M.Hegade
Contact Number & Address of the Expert	9008396800 A/P: Nipani Tq: Chikkodi Dist: Belagavi
Objectives of the Event	To study different varieties of birds in their natural habitat
Outcome of the Event	1. Students understood about diversity of birds and their behavior. 2. Students come to know about which types of birds are present in ARS Campus around GIB College Nipani.
<b>Photo Gallery</b>	
	
Communication Behavior Of Bird	Bird Watching Agriculture Resource Centre.

HOD  
HOD

Department of Zoology  
G.I. Bagewadi, 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

17-18 IV

### 13. ZOOLOGY (Optional)

#### B.Sc. 4th Semester Scheme (CBCS - Pattern)

Zoology (Optional) Revised syllabus  
2016-16 onwards

#### Cell Biology, Histology and Animal Behaviour

Total Teaching hours-60  
Total Marks-80  
Theory 4hrs/week

#### UNIT - I

##### Cell Biology

Cell Biology- Ultra structure of animal cell. Cell theory & cell cycle  
Ultrastructure & function of cell organelles - Plasma membrane, Endoplasmic  
reticulum, Ribosomes, Golgi-complex  
Lysosomes, Mitochondria & Nucleus. 1 hr 34

Chromosomes - Structure & types of chromosomes.  
Ultra structure of chromosome 8 hrs 24

#### UNIT - II

Cell division-Types- mitosis & meiosis. 3 hrs 36

Cellular Aging and Cell Death:  
Concept of Aging theories: 3 hrs 18

Intracellular changes, free radicals, somatic mutation, immunological, clonal  
selection and errors in DNA and RNA functions.  
Extracellular changes,  
Cell Death: Apoptosis, Necrosis, definition and significance

Cancer Cell:  
Characteristics: 3 hrs 18  
Theories/Hypothesis regarding causes of cancer.  
Extrinsic factors, Physical, Chemical and Biological.  
Intrinsic factors, somatic mutations and oncogenes and aging related phenomenon.



### UNIT-III

#### Histology

A brief account of Histo chemical techniques

Stains, Cytoplasmic and nuclear stains

Preparation of histochemical slides

3hrs H

Study of histological structure and functions of the following Mammalian organ sections.

8hrs H

- a. Tongue
- b. Salivary glands
- c. Stomach
- d. Intestine
- e. Liver
- f. Pancreas
- g. Kidney
- h. Adrenal

### UNIT-IV

- i. Pituitary
- j. Ovary
- k. Testis
- l. Thyroid

4hrs H

Ethology (Animal Behaviour) Introduction

Definition, Scope of Ethology. Brief contributions of Konard Lorenz, Niko Tinbergen and Karl Von Frisch.

2hrs ✓

Animal Communication- Chemical, Visual & Audio. Functions of signals, Odours, sounds & light.

2hrs ✓

### UNIT-V

Types of Animal Behaviour --

8hrs H

1. Innate behavior, Taxes, Reflexes, instincts, motivation
2. Learned behavior, Habituation, Imprinting, Condition reflexes, insight learning
3. Social behavior, Types of Animal society, Colony in Honey bees, Monkey troops, .
4. Territoriality and Courtship behaviour
5. Biological clock, Circadian Rhythm

Application of Ethological techniques (Ethogram) to human behavior

1hr ✓

Parental care - Concepts, Fishes, Amphibians and Birds.

2hrs ✓

35



2011-12 IV Semester

Zoology Practical's from 2015-16 onwards

1. Study of permanent histological slides of Mitosis and Meiosis - 2
2. Study of temporary preparation of different mitotic stages from onion root tip cells. - 1
3. Study of temporary preparation of different meiotic stages from Grasshopper / Onion flower bud. - 1
4. Preparation and observation of histology slides as mentioned Stomach, Intestine, Liver, Kidney, Adrenal, Thyroid, Ovary, Testis, - 3
5. Study of mimicry in Leaf Insect, Chameleon, Butterflies, Stick insects, Ants, Spiders and wasps) - 1
6. Study of different nests and nesting materials. - 1
7. Compulsory field visit to study mimicry habitats & community - 1
8. Internal Practical Test - 1





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Ref. No.: GIB/

Date: 03/04/2018

**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 Kannerimath, Kolhapur on 04/04/2018 at early morning 8.30am for the study of animal behavior for B.Sc. IV Sem students. 40 students have enrolled their names. Dr.Smt.V.R.Naik, Miss. S. M. Hegade and Komal Chandrakude will be accompanying the students. This is for your kind information.

Thanking you Sir,

LB

Head of Department  
H O O  
Department of Zoology  
G.I. Bagewadi NIPANI

Principal

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



(Mimicry, Habitat and Community) (Field Visit)

2017-18

B.Sc IV Sem

Sl.No	Roll.No	Name of the student
1	96	Abhishek Chougale
2	97	Amit Ammanagi
3	98	Arati Gore
4	99	Ashrafali Bargir
5	100	Chaitali Hegade
6	101	Chaitra Hosure
7	102	Pranali Chavan
8	103	Devyarri Khot
9	104	Dhanashree hasure
10	105	Dhanashree Shalake
11	106	Dhanashri Patil
12	107	Divya Chandrakude
13	108	Guravkumar Chougule
14	109	Tayashree Balikai
15	110	Komal Kadam
16	111	Madhuri Shelke
17	112	Malagoud Patil
18	113	Manoj Kumbar
19	115	Narendra Patil
20	116	Nootan Kurane
21	117	Nutan Shettimani
22	118	Omkar Magadum
23	119	Pallavi Sangane
24	120	Pooja Ghorapade
25	121	Pooja Karekar
26	122	Rachana Patil
27	123	Sangram Sanadi
28	124	Santosh Bilage
29	125	Seema Lagamannavar
30	126	Sharad Banne
31	127	Sheetal Magadum
32	128	Shivatehj Chougule
33	129	Shweta Sapagale
34	130	Sneha kambale
35	131	Soumya Patil
36	132	Sunita Patil
37	133	Tejas B Patil
38	134	Vaishnvi Ajarekar
39	135	Vaishnavi Ambale
40	136	Yogesh Varute
41	137	Pooja Reddy
42	23	Digvijay Nigave

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








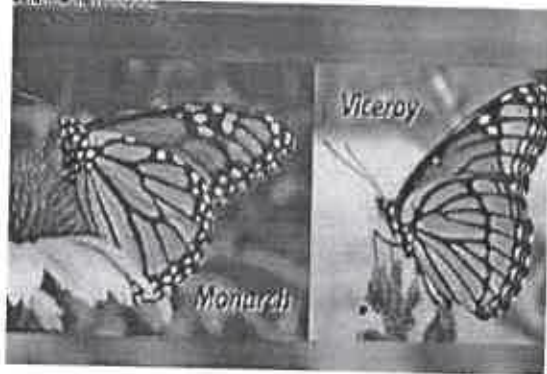
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**REPORT ON : STUDY OF ANIMAL BEHAVIOR**

Name of the Department	Zoology
Name of the Event Organized	Field Visit
Title of the Event	Study of mimicry habit and community
Date of the Event Organized	04.04.2018
Class	B.Sc IV Sem
Study tour location	Kannerimath, Kagal (Maharashtra)
Name of the Convener	Smt. H.L. Halappanavar
Participants	37
No. of Participants	Total 37 Teachers 02 Student 35
Name of the Expert with Designation	Misst. S.M. Hegade and Miss. T.M. Kumbhar
Contact Number & Address of the Expert	9902344050
Objectives of the Event	Mimicry involves different species and functions to protect from predators.
Outcome of the Event	Makes as antipredator adaptation.
Photo Gallery	
	
Study of coloration & mimicry in Animals.	Mimicry in viceroy Butterfly.

19  
HOD  
Department of Zoology  
G.I. Bagewadi NIPANI

CO-ORDINATOR  
K.L.E. Society's  
G. I. Bagewadi College, Nipani.

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

17-18

B.Sc V Semester (S. 3)  
Paper 1  
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 2hrs
- Competition, Parasitism
- 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, 2hrs
- Oxygen cycles
- Community Ecology-Community structure, Ecological niches, Edge effect, Stratification, Ecotone. 2hrs
- Population Ecology... Density, natality, 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 :

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.

09hrs



2013-14 Semester

Total -11 Practicals

1. Study of fossils (vertebrate(3) and invertebrate(3))  
1hr
2. Mesozoic reptiles (Ichthyosaur, Tyrannosaur, Bronosaur, Triceratops, Archaeopteryx)  
1hr
3. Evolution of man (Homo-erectus, Homo-habills, Homo-neanderthalensis)  
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<sub>2</sub> 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 & Valentine  
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



To,  
The Principal  
G.I Bagewadi College  
Nipani

Date: 12-09-2017

Sir,


Sub- Request to grant permission to carry out study tour for BSc V Sem Students

With reference to the above and as per the RCU Belagavi Syllabus for BSc V Sem there is a study tour to study different vegetation and forest types. So we have decided to visit Dandeli-Ulavi-Karwar-Gokarna- Murdeshwar-Jog falls Sirsi-Yana- Manjuni- Bakkal Garden- Sonda- SahsraLinga-Yellapur-Dharwad for the study and collection. We request your kind permission for the same on 14<sup>th</sup> Sept to 17<sup>th</sup> Sept 2017.

Thanking You

  
Yours faithfully

Department of Botany  
K.L.E's G. I. B. College, Nipani.

  
PRINCIPAL

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



(Study of Ecosystem) Study tour		
2017-18		B.Sc V Sem P-I
Sl. No.	Roll. No.	Name OF The Students
1	81	Achal Magadum
2	82	Akshay Havaladar
3	83	Ankita Magadum
4	84	Arati Bhalebhaldar
5	85	Archana Kumbar
6	86	Ashwini Sabale
7	87	Harsha Shirkali
8	88	Varsha Jabade
9	89	Kalyani Shitale
10	90	Karishna Haikarni
11	91	Kaveri Kumbar
12	92	Laxmi Shetti
13	93	Mahadevi Bhanase
14	94	Maruti Gurav
15	95	Mayuri Jasud
16	96	Nilam Patil
17	97	Pallavi Kumbar
18	98	Pallavi Nagave
19	99	Shivani Patil
20	100	Pragathi Patil
21	101	Reshma Chougule
22	102	Rushikesh Majage
23	103	Sanobar Mulla
24	104	Sheraddha Sangane
25	105	Shruti Chonchannavar
26	106	Sonali Naik
27	107	Tejashree Mangavate
28	108	Trupti Kamblr
29	109	Uzma Mulla
30	110	Varsha Kenawade
31	111	Vijaykumar karoshi
32	112	Yashodha Hunakmpl
33	113	Megharani Patil
34	114	Aishwarya Modi
35	115	Chaitanya Chavan

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





K.L.E. Society's  
G.I. Bagewadi Arts, Science, Commerce and PG College, Nipani-591237  
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Ref. No.: GIB/

Date: 14/09/2017

### '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	14 Sept. 2017
Class	B.Sc. V Sem
Field visit location	Dandeli
Name of the Convener	Smt. K. I. Pattan, Assistant Prof.
Participants	36
No. of Participants	Total 37 Teachers 01 Students 36
Name of the Expert with Designation	Miss. Sampada 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. Students got knowledge about producers, consumers and decomposers. 2. The students are got knowledge about Pond Ecosystem.
Photo Gallery	
	
Pond Ecosystem	Field visit to Dandeli

HOD

HOD

Department of Zoology  
G.I. Bagewadi 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.

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 HH  
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 HH  
Aquaculture : 10 hrs SH  
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 SH
- Animal Husbandary: Maintenance, Breeds Diseases, Products and By Products of the following 10 hrs TK  
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. Composition and properties & Economic importance 3 hrs. TK



2017-18 VI Sem P-I

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.



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

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Ref. No.: GIB/

Date: 11/01/2018

DEPARTMENT OF ZOOLOGY

Field Visit – 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 12/01/2018 to study about applied zoology about Dairy Farming, Sericulture, Vermiculture, Poultry Farming, and Insect Pest Management for B.Sc. VI Sem students. 34 students have enrolled their names. Miss. S. M. Hegade and Miss. K. R. Chandrakude will be accompanying the students. This is for your kind information.

Thanking you Sir,

*He*  
Head of Department

**HOD**

Department of Zoology  
G.I. Bagewadi NIPANI

*[Signature]*  
Principal

**PRINCIPAL**

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





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Ref. No.: GIB/

Date: 12/01/2018

### PROJECT 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	12/01/2018
Class	B.Sc VI Sem
Name of the Convener	Miss. Tanu Kumbhar
Participants	35
No. of Participants	Total 35 Teachers 01 Students 34
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 sheep and goats 2.To Study the sericulture
Outcome of the Event	1. They got knowledge about poultry farming.. 2.They are the best acceptable disposal of waste, ways for quality, environment & organic farming from vermiculture
Photo Gallery	
	
Sericulture Farm	Poultry Farm

HOD  
HOD

Department of Zoology  
G.I. Bagewadi, 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.

Applied Zoology (Field Work)

2017-18

B.Sc VI Sem P-I

Sl. No.	Roll. No.	Name OF The Students	Project Names
1	84	Achal Magadum	Poultry farming
2	85	Akshay Havaladar	Poultry farming
3	86	Aniket Magadum	Poultry farming
4	87	Arti Bhalebhaldar	Poultry farming
5	88	Archana Kumbar	Poultry farming
6	89	Ashwini Sabale	Insect Pest Management
7	90	Harsha Shirkali	Insect Pest Management
8	91	Varsha Jabade	Insect Pest Management
9	92	Kalyani Shitale	Insect Pest Management
10	93	Karishna Halkarni	
11	94	Kaveri Kumbar	Vermiculture
12	95	Laxmi Shetti	Vermiculture
13	96	Mahadevi Bhanase	Vermiculture
14	97	Maruti Gurav	
15	98	Mayuri Jasud	Vermiculture
16	99	Nilam Patil	Dairy breeds
17	100	Pallavi Kumbar	Dairy breeds
18	101	Pallavi Nagave	Dairy breeds
19	102	Shivani Patil	Dairy breeds
20	104	Pragathi Patil	Dairy breeds
21	105	Reshma Chougule	Dairy breeds
22	106	Rushikesh Majage	Sericulture
23	107	Sanobar Mulla	Sericulture
24	108	Sharaddha Sangane	Sericulture
25	109	Shruti Chonchannavar	Sericulture
26	110	Sonali Naik	Poultry farming
27	111	Tejashree Mangavali	Poultry farming
28	112	Trupti Kamblr	Poultry farming
29	113	uzma Mulla	Poultry farming
30	114	Varsha Kenawade	Poultry farming
31	115	Vijaykumar karoshi	Dairy breeds
32	116	Yashodha Hunakmpi	
33	117	Megharani Patil	Dairy breeds
34	118	Aishwarya Modi	Dairy breeds
35	119	Chaitanya Chavan	Sericulture

HE

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



19/20  
Rani Channamma University, Belagavi  
B.Sc VI Semester - 0.2

Paper II

(Microbiology, Nanotechnology, Bioinformatics and Methods in Biology)

Total hours - 50

Marks - 80

Theory 4 hrs/week

Microbiology

1. Microscopy : Compound Microscope and its functions 03 hrs  
Dark field microscope, Fluorescent Microscope  
Phase Contrast Microscope and Electron Microscope and  
their uses
2. Sterilization and other Techniques - Physical and Chemical methods 01 hr  
Bacteria Classification based on shapes, structure (anatomy) Bacterial  
reproduction and growth. 02 hrs
3. Virus - Morphology, chemical properties, classification and nomenclature 02 hrs  
DNA and RNA viruses.
4. Fungi: Structure, classification and reproduction, Yeasts 02hrs
5. Fermentation: Types of Fermentor and basic functions 03hrs  
Methods of preservations and criteria for the selection of microorganisms
6. Production of antibodies Penicillin, Streptomycin, Enzyme protease,  
Riboflavin. 02hr
7. Oral microbial flora of the human body 01hr
8. Role of microbes in environment 01hr

Nanotechnology

4hrs

Introduction History Name: Tools and Techniques in Nanotechnology.

Nanobiology; application of Nano in biology- Nano drug Administration Diagnostic &  
Therapeutic applications. Lotus effect, Gold & Silver Nanotechnology. Curcumin  
phytochemicals, Cinnamon in green nano technology.



## Bioinformatics

1. Introduction: Definition, Goal of Bioinformatics, Sequencing, Sequences analysis and Structure analysis  
Applications of Bioinformatics. 02hrs

2. Classification of Biological Data Bases. Characteristics of FASTA (Fast Alignment) BLAST (Basic Local Alignment Search Tool). 02hrs

3. Aims and goals of Human Genome Project: Main findings of human genome Project., Prediction and tools for gene prediction. Comparative genomics. 02hrs

4. Proteomics: Two dimensional Gel Electrophoresis. Mass spectrometry, SDS \_\_ PAGE. Structure of protein \_\_ Primary, Secondary, Tertiary and Quaternary. 02hrs

Protein structure prediction 01hr

Application of Proteome analysis 01hr

The future of Proteomics 01hr

## Methods in Biology

Techniques of Cell fraction and Centrifugation. Homogenization and cell tissue disruption. Centrifugation. Ultra centrifugation. 02hrs

DNA Sequencing. \_\_ In situ Hybridization, DNA microchips 02hrs

Genetic Engineering in animals- Transgenic Mouse, Transgenic sheep. Genetically Altered Fish, Mosquito and Drosophila. 02hrs

Gene therapy in humans. 02hr

Histochemical and Immunization Techniques \_\_ ELISA, RIA, Flow Cytometry 02hrs



Nucleic Acid Blotting and their applications - Southern Blotting, Northern Blotting, Western Blotting	02hrs
Biophysical Methods - Brief note of NMR, ESR, Spectroscopy and their uses	02hrs
Radioisotopes Techniques in Biochemistry - Types of radioactive decay- Alpha, Beta emission & Gamma rays	01 hr
Geiger-Muller counter, Liquid Scintillator	01hr
Biological applications of Radioisotopes	01hr
A brief note on the use of ECG, PET, MRI, CAT. Single Neuron recorder in Electro Physiological methods	02hrs



2017-18 VI Sem Page 10

B.Sc VI SEMESTER 0.2

PRACTICAL DETAILS

ZOOLOGY Pract-II

**TOTAL 11 PRACTICALS**

Measurement of micro organisms (Micrometry)

Preparation of liquid medium (Broth)

Preparation of solid media (PDA medium and PDA plates)

Preparation of agar slants.

Bacterial cell counting using haemocytometer.

Simple and Gram's staining differentiation of bacteria.

Isolation, Identification and enumeration of Bacteria/Protozoa from moist soil or sewage water

Practical application of Bioinformatics: Tool BLAST And FASTA to find out sequence of nucleotides in Desired gene/Amino acid in desired protein

Study of Microbiological Lab Equipments--

Microscope, Centrifuge, Autoclave, Pressure cooker, Laminar air flow, Streak Plate Inoculation needle etc.

Visit to Diagnostic center to study practical application of ECG, PET, MRI, CAT





19-18  
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]

Date: 21/03/2018

**DEPARTMENT OF ZOOLOGY**

To,  
The Director  
KIDNAR, Pawate Nagar, Dharwad

Sub: Permission to visit KIDNAR Pawate Nagar Dharwad.

Respected sir,

As a part of curriculum, RCU syllabus for VI Sem students there is a compulsory visit to Research Centre to study instrumentation and techniques related to molecular biology and biotechnology for VI Sem students. So request you to kindly accord your permission on 21/03/2018.

Thanking you,

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



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

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]

Date: 21/03/2018

**DEPARTMENT OF ZOOLOGY**

To,

The Principal

G.I. Bagewadi College, Nipani

Sub: Permission to visit KIDNAR Pawate Nagar Dharwad.

Respected sir,

As a part of curriculum we are arranging one day study tour to KIDNAR Pawate Nagar Dharwad.

There is a compulsory visit to Research Centre to study instrumentation

and techniques related to molecular biology and biotechnology for VI Sem students. So request you to

kindly accord your permission on 21/03/2018.

Thanking you,

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



Visit to study Biotechnological instruments Dharwad (Study Visit)		
2017-18		VI Sem P-II
Sl. No.	Roll. No.	Name OF The Students
1	84	Achal Magadum
2	85	Akshay Havaladar
3	86	Aniket Magadum
4	87	Arti Bhalebhaladar
5	88	Arohana Kumbhar
6	89	Ashwini Sabale
7	90	Harsha Shirkali
8	91	Varsha Jabade
9	92	Kalyani Shitale
10	93	Karishna Halkarni
11	94	Kaveri Kumbhar
12	95	Laxmi Shetti
13	96	Mahadevi Bhanase
14	97	Maruti Gurav
15	98	Mayuri Jasud
16	99	Nilam Patil
17	100	Pallavi Kumbhar
18	101	Pallavi Nagave
19	102	Shivani Patil
20	104	Pragathi Patil
21	105	Reshma Chougule
22	106	Rushikesh Majage
23	107	Sanobar Mulla
24	108	Sharaddha Sangane
25	109	Shruti Chonchannavar
26	110	Sonali Naik
27	111	Tejashree Mangavali
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29	113	uzma Mulla
30	114	Varsha Kenawade
31	115	Vijaykumar karoshi
32	116	Yashodha Hunakmpi
33	117	Megharani Patil
34	118	Aishwarya Modi
35	119	Chaitanya Chavan

  
 Department of Zoology  
 S. L. Bagowadi College, Nipani





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Website: WWW.Klegibnpu.edu.in E-mail: klegib\_npu@yahoo.co.in Ph: 08338-220116

Ref. No.: GIB/

Date: 22/03/2018

### REPORT ON -STUDY OG BIOTECH INSTRUMENTS

Name of the Department	Zoology
Name of the Event Organized	Study tour
Title of the Event	Study of Bioinstruments.
Date of the Event Organized	21.03.2018
Class	B.Sc VI Sem
Study tour location	JNMC,Belagavi
Name of the Convener	Smt.K.I.Pattan
Participants	30
No. of Participants	Total 32 Teachers 02 Students 30
Name of the Expert with Designation	Smt.G.A.Dhekale,Assistant prof
Contact Number & Address of the Expert	9036140785
Objectives of the Event	To acquaint the student with advance techniques in Biological sciences. Practical skills of using instruments in Biology.
Outcome of the Event	Student gets the knowledge of the devices used to measure evaluate and treat the human body students gets the knowledge of operating the instruments, and evaluate various aspects.
Photo Gallery	
	
Visit to JNMC.	Scientist Shri. Doddamani explaining the instruments.

HOD  
HOD

Department of Zoology  
G.I. Bagewadi NIPANI

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

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