



**DEPARTMENT OF ZOOLOGY**

VIJAYA COLLEGE

1.	Name of the department	ZOOLOGY
2.	Year of Establishment	1945
3.	Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)	B.Sc. : CBZ, CZBt, CBBt
4.	Names of Interdisciplinary courses and the departments/units involved	NIL
5.	Annual/ semester/choice based credit system (programme wise)	Semester System : Prior to 2014 - 15 Choice Based Credit system: 2014 - 15 onwards
6.	Participation of the department in the courses offered by other departments	NIL
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	NIL
8.	Details of courses/programmes discontinued (if any) with reasons	NIL
9.	<b>Number of teaching posts</b>	
	<b>Designation</b>	<b>Sanctioned</b>
	Professors	NIL
	Associate Professors	2
	Asst. Professors	2



10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of years experience	No. of Ph.D./M.Phil students guided for the last 4 years
M.J.H.Shafi	M.Sc., M.Phil	Associate Professor	Genetics	31	Nil
Dr. Vinutha	M.Sc., M.Phil, Ph.D	Associate Professor	Comparative Animal Physiology	27	01 Ph.D and 03 M.Phil
Dhanalakshmi. N.	M.Sc.,	Assistant Professor	Reproductive Physiology	14	Nil
Dr. B K Chakrapani	M.Sc., Ph.D	Assistant Professor	Fishery Biology	14	Nil

11.	List of senior visiting faculty	Dr. M J Sundar Ram Dr. Prabhakar Ghai Dr. G M NIJAGUNA, Associate Professors of Zoology, Vijaya College, Bengaluru	
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty	NIL	
13.	Student -Teacher Ratio (programme wise)	42 : 1	
14.	Number of academic support staff	Sanctioned	Filled
		2	2
15.	Qualifications of teaching faculty with D Sc/ D.Litt. / Ph.D. / MPhil / PG	Ph.D	02
		M.Phil.	01
		PG	01



16.	Number of faculty with ongoing projects from	01
	National Funding Agency	01
	International Funding Agency	NIL
	Grants Received	Rs.1,80,000=00 from UGC
	Title of the Project : <b>The Study on Distribution, Haemocytes, Chromosomal and Molecular Approach of Spiders in selected Areas of Bengaluru</b>	
17.	Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received.	NIL
1.	Research Centre /facility recognized by the University	NIL
2.	Publications	6
	Publication per faculty	1.5
	Number of papers published in peer reviewed journals	
	National Journals	00
	International Journals	06
	Books Edited	02
a.	Title : <b>BIOLOGY 1<sup>st</sup> Year PU Text Book</b> Co-Author : <b>Md. Jawad Hussain Shafi</b> Published by : <b>Cengage Learning India Pvt. Ltd. Delhi</b> Number of Editions : Three from 2010 -2012.	
b.	Title : <b>II PUC BIOLOGY Practical Manual</b> Author : <b>M. J. H. Shafi</b>	



	Published by : <b>Biology Teachers Forum, Bangalore.</b> First Edition : September,2013. Second Edition : July, 2014.
Books Edited with ISBN Numbers	NIL
Impact factor	3.81
h - index	NIL

### Details of Paper Publications in Peer reviewed journals

#### a. Publications in International Journals

Sl. No.	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
1	Dr. C Vinutha	"EFFECT OF CHLOROCHOLINE CHLORIDE(CCC) ON PLANT HEIGHT , LEAF AREA AND PROTEIN CONTENT OF PAPAYA ( <i>Carica papaya</i> )"	International Journal of Current Research (in press)	2015		
2	Dr. C Vinutha	"Effect of hormones on invitro growth of Papaya ( <i>Carica papaya</i> )".	International Journal of Current Research(in press)	2015		
3	Dr. C Vinutha	Study on Sexual size dimorphism (SSD) and morphometric analysis of <i>Argiope anasuja</i> (Signature spider) of south Bengaluru, Karnataka.	International Journal of Current Research Vol.6 pp.6059-6063. April 2014	2014	3.1	



Sl. No.	Name of the Faculty	TITLE OF THE PAPER	JOURNAL	Year	IMPACT FACTOR	CITATIONS
4	Dr. C Vinutha	“Morphometry & Principle Component Analysis (PCA) of red house spider <i>Nesticodesrufipes</i> of south Bangalore, Karnataka”	International Journal of Scientific Research .Vol 9 pp 35-40. Nov. 2014	2014	1.1	
5	Dr. B K Chakrapani	Length Weight relationships of <i>Cynoglossus lida</i> (Bleeker)	Indian Journal of Fisheries, 28; Nos. 1 & 2, Pp. 249-253, 1981.	2014	6.2	
6	Dr. B K Chakrapani	A Morphometric comparison of the Malabar sole, <i>C. semifasciatus</i> Day from different centres of the West Coast.	Journal of Marine Biological Association of India. 24 (1&2), Pp.72-79, 1982.	2014	4.84	

Average Impact Factor : 3.81

18.	<b>Areas of consultancy and income generated</b>	
	<ul style="list-style-type: none"> <li>• Generation of study material to teachers of Bangalore University on request basis</li> <li>• Distribution of study material to students of other institutions on request basis</li> <li>• Main beneficiaries :               <ul style="list-style-type: none"> <li>➤ Students of Kanakapura Rural College, Kanakapura</li> <li>➤ Students and teachers of Govt. First Grade College, Channapatna</li> <li>➤ Faculty of VV Puram Science College, VV Puram, Bangalore</li> </ul> </li> </ul>	
19.	Faculty as members in	



	a. National Committees	NIL
	b. International Committees	NIL
	c. Editorial Boards	NIL
	All the faculty members are members of Bangalore University Zoology Teachers' Forum	
20.	Student projects	
	a) Percentage of students who have done in-house projects including inter departmental/programme	19%
	b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies	NIL

#### Details of In – House Student Projects conducted

Project Title	Names of Students
A survey of Municipal Solid Waste Management in a Few Wards of Bengaluru.	Chinmayee, Pruthvi
Biomedical Waste Management: A study of biomedical waste management practices in selected hospitals in the Bangalore Metropolitan Area	Anisa Husna , Bhavya , Sushmitha and Divyajala
Biomedical Waste Management: A study of biomedical waste management practices in selected hospitals in the Bangalore Metropolitan Area	Miss. Anisa Husna
Environmental Health of Selected Land Fill Areas in Bengaluru City	Subhashini M, Chaitra Bhat Shreedar, Tejaswini K Rao, Harika, Anupama and Harshini, Nadig. S
Survey of the Present Environmental Health Status and Utility of few Wetland Habitats in the Bangalore Metropolitan Regions.	Hemanth Kumar C. M, Rajaram Kini. B, Sreenidhi V, Priyadharsini. S, Nikitha. P, Divya G and Dhanush S.



21.	<b>Awards / Recognitions received by faculty and students</b>	
	<b>AnisaHusna, Bhavya, Sushmitha and Divyajala of IV Semester</b> (2014 - 15) <b>B.Sc.(CBZ)</b> students	have received best poster presentation for the poster ' <i>A study of biomedical waste management practices in selected hospitals in the Bangalore Metropolitan Area</i> ' in the National Conference on Integrated Urban Waste Management and Environmental Health (IUWMEH) held at Vijaya College on 27-28 September, 2013.
	<b>Smitha B Rao</b> , a CZBt student	has secured <b>VII Rank</b> in Bangalore University B.Sc., examinations in 2011
	<b>Bindushree</b> , a CBZ student	has secured <b>X Rank</b> in Bangalore University B.Sc., examinations in 2014.
22.	<b>List of eminent academicians and scientists / visitors to the department</b>	
a.	<b>Dr. Hoysall Chanakya</b>	Professor, CST ASTRA, Indian Institute of Science, Bangalore
b.	<b>Dr. Alagappa Mosses</b>	Head, Dept. of Environmental Sciences, Bishop Helper College, Tiruchirapalli.
c.	<b>Dr. R. Nagendran Murthy</b>	Expert Member, National Green Tribunal, Chennai.
d.	<b>Dr. Sadhan K. Ghosh</b>	Professor and Head, Dept. of Mechanical Engineering, Jadavpur University, Kolkata
e.	<b>Dr. H. A. Ranganath</b>	Vice Chancellor, Bangalore University and Young Scientist Awardee
f.	<b>Dr. S. Ravichandra Reddy</b>	Professor of Fisheries (Retd), Department of Zoology, Bangalore University.
g.	<b>Dr. S.R. Anantharayana</b>	Professor of Zoology and Director CDC, Bangalore University.
h.	<b>Dr. Shakunthala Katre</b>	Professor of Zoology (Retd), Bangalore University.



i.	Dr. Ramachandra Mohan	Professor of Zoology, Bangalore University.
j.	Dr. Jayaprakash	Professor of Zoology, Bangalore University.
k.	Dr. Ashadevi	Professor of Zoology, Bangalore University.
l.	Dr. M.R.N. Murthy,	Professor, Molecular Bio – Physics Unit, Indian Institute of Science, , Bangalore University.
m.	Dr. T.V.Ramachandra	Professor, Center for Ecological Sciences, Indian Institute of Science
n.	Dr. Meenakshi Bharath	Gynecologist and Environmentalist
o.	Dr. Adil Sadiq, M.S. M.Ch, FMIS	Robotic cardiothoracic surgeon , Senior Cardiothoracic and Vascular Surgeon, Head, Adult Cardiothoracic Surgery, Sakra World Hospitals, Marathalli, Bangalore.
p.	Dr. Mamatha Hunumappa B.S., M.S., Ph.D	Science writer and GWAS (Genome-wide association studies) curator, NexBio, Santa Clara, California, USA.
q.	Dr. Mitesh Shetty MBBS, M.Sc. (UK), Ph.D.	Consultant, Clinical Geneticist, Manipal Hospitals
23.	Seminars/ Conferences/Workshops organized & the source of funding	

**i. Organized**

Activity	Year	Funding
One day workshop on Practical Curriculum: Alternative to Dissection	July 07,2012	BHS Higher Education Society
Two day Work shop for Teachers (UG), Bangalore	February 01-02, 2013	BHS Higher Education Society





University on Revised Curriculum of VI Semester Zoology Practicals.		
Two day National Conference on Integrated Urban Waste management and Environment Health	September 27-28, 2013	BHS Higher Education Society and Private sponsors

ii. **Attended**  
a. **International Conferences**

Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by (Name of the institution or university)
M.J.H.Shafi	4 <sup>th</sup> International Conference on Solid Waste Management	28-30 <sup>th</sup> Jan 2014	Acharya N. G Ranga Agricultural University, Hyderabad

b. **National Conferences**

Sl. No.	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by (Name of the institution or university)	Title of the paper presented
1	Prof. M. J. H. Shafi	Impact of urbanization on Biota and the Role of Govt. and Non- Govt. Organisations in their conservation.	1 <sup>st</sup> August 2014	Govt. Science College, Bangalore	-----
2	Dr. B.K. Chakrapani	Impact of urbanization on Biota and the Role of Govt. and Non- Govt. Organisations in their conservation.	1 <sup>st</sup> August 2014	Govt. Science College, Bangalore	-----
3	Dr. C. Vinutha	World heritage status to the western ghats. A multi dimensional approach	3 <sup>rd</sup> sept.2013	M.E.S College' B'lore	-----



Sl. No.	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Date	Organized by (Name of the institution or university)	Title of the paper presented
4	Dhanalakshmi, N	World heritage status to the western ghats. A multi dimensional approach	3 <sup>rd</sup> sept. 2013	M.E.S College' B'lore	-----
5	Dr. B.K.Chakrapani	Nat. Conf. on Integrated Urban Waste Management and Environmental Health (IUWMEH), Bengaluru.	23 <sup>rd</sup> 24 <sup>th</sup> Sept. 2013	Vijaya College, Bangalore	Gottigere lake, an example of pathetic mismanagement of urban wetland ecosystem health - Bengaluru metropolis. (Individual).

**c. Regional Conferences**

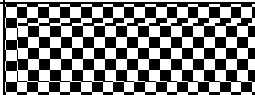
Sl. No.	Name of the faculty	Title of the Workshop/ Seminar/ Conference	Indicate Regional level/ State level	Date	Organized by (Name of the institution or university)	Title of the paper presented
1	Dhanalakshmi. N.	Workshop on Separation techniques of biomolecules	State	26-27th Aug 2011	M.L.A, College,B'lore	---

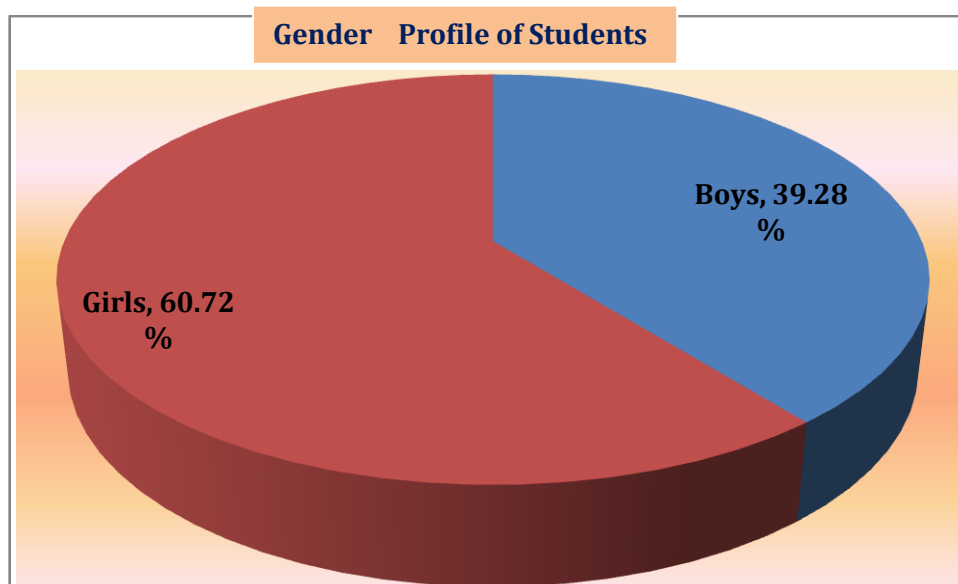
**26. Student Profile Programmes:**

Year	Name of the Course / Programme	Applications Received	Selected	Enrolled in I Year		TOTAL All Years	Pass Percentage (outgoing students)
				Male	Female		
2010 - 11	B.Sc.	74	74	29	45	178	90.24%
2011 - 12		49	49	16	33	179	90.32%
2012 - 13		33	33	19	14	143	90.00%
2013 - 14		44	44	17	27	135	92.31%
2014 - 15		59	59	24	35	154	

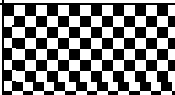


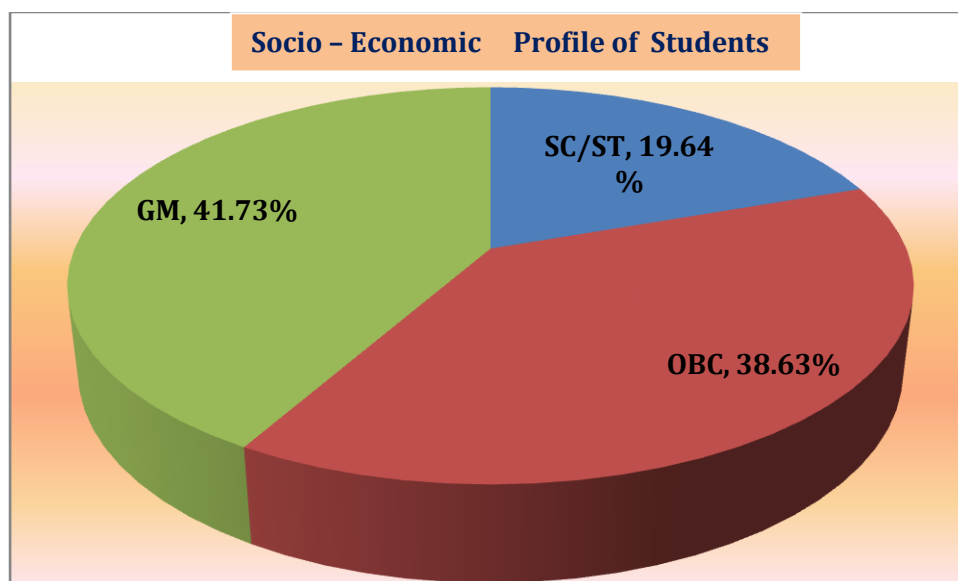
**Gender Profile of Students**

Academic Year	Boys	Girls	Total
2011 – 12	75	104	179
2012 – 13	53	90	143
2013 – 14	50	85	135
2014 – 15	62	92	154
<b>Average Percentage</b>	<b>39.28%</b>	<b>60.72%</b>	



**Socio – economic profile of students**

Academic Year	SC/ST	OBC	GM	Total
2011 – 12	32	55	92	179
2012 – 13	26	60	57	143
2013 – 14	26	64	45	135
2014 – 15	36	57	61	154
<b>Average Percentage</b>	<b>19.64%</b>	<b>38.63%</b>	<b>41.73%</b>	



**27. Diversity of Students**

Name of the Course	% of students from the state	% of students from other state	% of students from Abroad
CBZ	100	Nil	Nil
CZBt	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

No Data Available

**29. Student progression**

Student progression	Against % enrolled			
	Year	No. enrolled	Total No.	%age
UG to PG (Zoology)	2010 - 11	25	42	59.5%
	2011 - 12	38	67	56.7%
	2012 - 13	55	72	76.7%
	2013 - 14	15	37	40.5%
	<b>Average</b>	<b>33.3</b>	<b>54.5</b>	<b>58.4%</b>



PG to M.Phil.	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
<b>Employed</b> ● Campus selection	Data provided under student support services from placement cell
● Other than campus recruitment	No data Available
Entrepreneurship/Self-employment	NIL

30.	Details of Infrastructural facilities	
a.	LIBRARY	
	<b>Books</b> Main Library	3726 Books
	Department Library	300 Books
b.	Internet facilities for Staff & Students	Available
c.	Class rooms with ICT facility	02 Class rooms and Laboratory
d.	Laboratories	02
	Area of the Laboratory	2352 sq.ft.
	Museum with large number of specimen collections (01)	1456 sq.ft.
31.	Number of students receiving financial assistance from college, university, Government or other agencies	Data furnished under student support services
32.	<b>Details of Student Enrichment Programmes</b>	
	❖ <b>BIO- REAP :</b> Seven students of B.Sc. (CBZ) during the years 2011 – 13 enrolled and successfully completed a 2 year course ( Bio reap) conducted by	



Indian Institute of Science, Bangalore with a **scholarship of Rs. 5000/-** per student.

Date	Name	Enrichment Programme
21.08.2014	<b>Dr. Mitesh Shetty</b> MBBS, M.Sc., Ph.D. Consultant, Clinical Geneticist. Manipal Hospitals.	Guest Lecture Topic: <b>Overview of Clinical Genetics.</b> (Jointly organized by Dept. of Zoology and Genetics)
18.08.2014	<b>Dr. Meenakshi Bharath</b> MBBS, MD Naturalist and Gynecologist.	Topic: <b>Save Nature and nurture nature.</b>
28.08.2013	<b>Dr. Mamatha Hunumappa</b> B.S., M.S., Ph.D Science writer and GWAS (Genome-wide association studies) curator, NexBio, Santa Clara, California, USA.	<b>Guest Lecture: 'Roots and Branches: A Local Biologist's Journey in Science'</b>
17.01.2013	<b>Dr. Saravanan</b> Ph.D. Prof. in Biotechnology and Research Co-ordinator, Dr. MGR University, Chennai.	<b>Guest Lecture: Anticancer Properties of Green Tea</b>
17. 09.2012	<b>Dr. Adil Sadiq</b> Senior Consultant CTVS, Apollo Hospitals, Banneraghatta Rd, Bangalore.	<b>Guest Lecture: 'You and Your Heart'.</b>
18.08.2012	<b>Dr. Ravichandra Reddi</b> Ph.D. Former Professor of Zoology, Bangalore University	<b>Guest Lecture: Biodiversity in India.</b>
10.08.2012	<b>Dr. Ravi Kumar</b> Ph.D. Dept. of Molecular Neurobiology, New York University, USA	<b>Topic: Biotechnological Applications in Pharmaceutical Industries.</b>



Date	Name	Enrichment Programme
15 <sup>th</sup> -17 <sup>th</sup> August 2012	<b>Exhibition</b>	3 day Exhibition on Environmental Issues by Life Science students. Number of Visitor: 4000 (From BHS high school, Vijaya PU College and Vijaya College)
21.07.2012.	<b>Prof M.R.N. Murthy,</b> Professor, Molecular Bio – Physics Unit, Indian Institute of Science, Bangalore	<b>Guest Lecture: 'Uncommon Common Sense'</b>
30.06.2012	<b>Dr. Shivamallu,</b> National College, Bangalore	Topic : <b>'Environment and its importance'</b>
26.07.2011	<b>Dr. Niranjanaradhya</b> Ph.D. Siddaganga Science, Arts and Commerce College for Boys, Tumkur.	Topic: <b>Climate Change: Global Warming.</b>
11. 01.2010	<b>Dr. Rahamath Ataz</b> Ph.D. HOD, Dept. of Zoology, Al-Ameen Degree College, B.lore	Topic: <b>Myths and Facts of Snakes.</b>
11th - 13th February, 2015	<b>An Exhibition on specimen collected during the field visit</b>  Invitees: Students and Staff of the College and the Neighbouring Institutions.  No. of Visitors: 3000.	" <b>Marine Biodiversity of Coastal Karnataka</b> "

### 33. Teaching methods adopted to improve student learning

- ❖ Chalk and talk method
- ❖ ICT Methodology with PPT Presentations and Youtube presentations
- ❖ Question bank / Assignment
- ❖ Remedial class

- ❖ Student Seminars
- ❖ Visual Charts and Educational DVDs
- ❖ ICT with Smart Board in Laboratory
- ❖ Permanent Slides
- ❖ Protozoan culture from collected water samples

34. Participation in Institutional Social Responsibility (ISR) and Extension Activities:

<p>15 -17<sup>th</sup> August 2012</p>	<p>3 day Exhibition on Environmental Issues by Life Science students. Number of Visitors: 4000 (From BHS high school, Vijaya PU College and Vijaya College)</p>
<p>First Week of March, 2013</p>	<p>One week Tour to Tamilnadu: Natural Science girl students of Vijaya College performed Street plays to highlight the atrocities on Women to create awareness among Public.</p>

Life Science Students of Vijaya College Performing a Play in Madurai to create awareness and to highlight the atrocities on Women for Public during their education trip to Tamilnadu (March-2013).

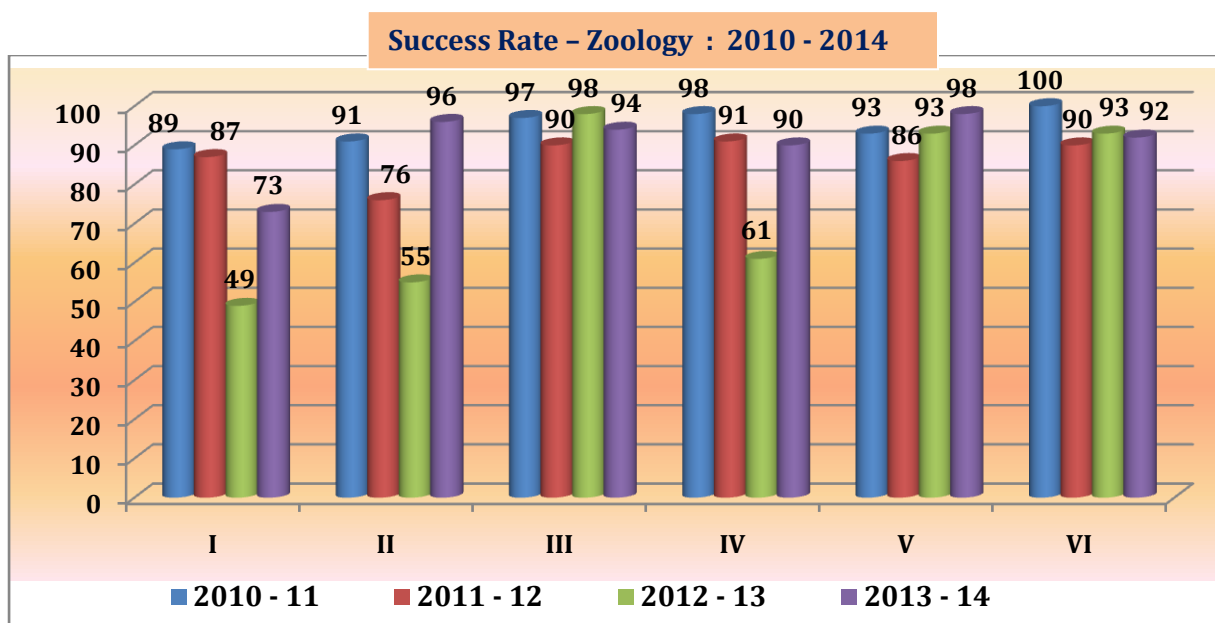






**I. Trends in Success Rate of Students**

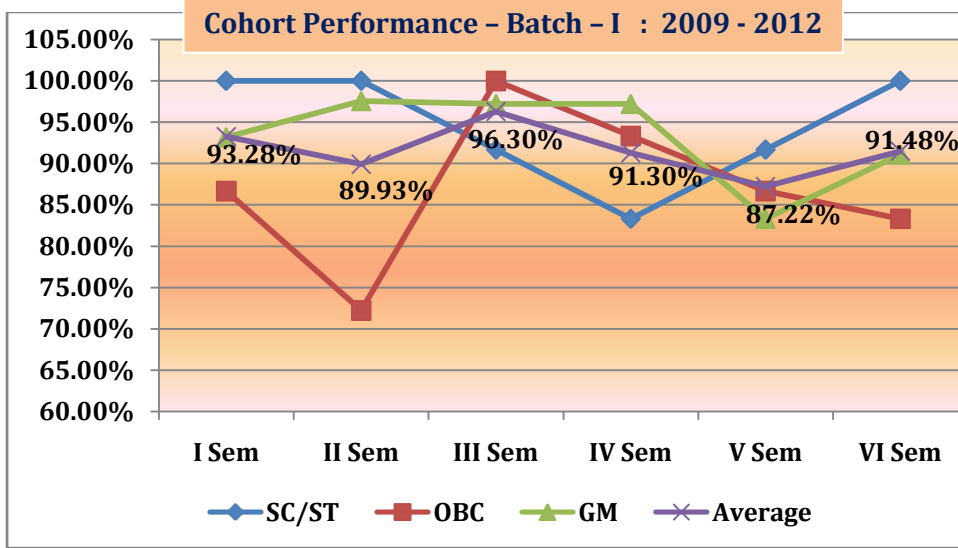
Sem	2010 - 11	2011 - 12	2012 - 13	2013 - 14
I	89	87	49	73
II	91	76	55	96
III	97	90	98	94
IV	98	91	61	90
V	93	86	93	98
VI	100	90	93	92



**II. Cohort Performance of Students : 2010 - 2014**

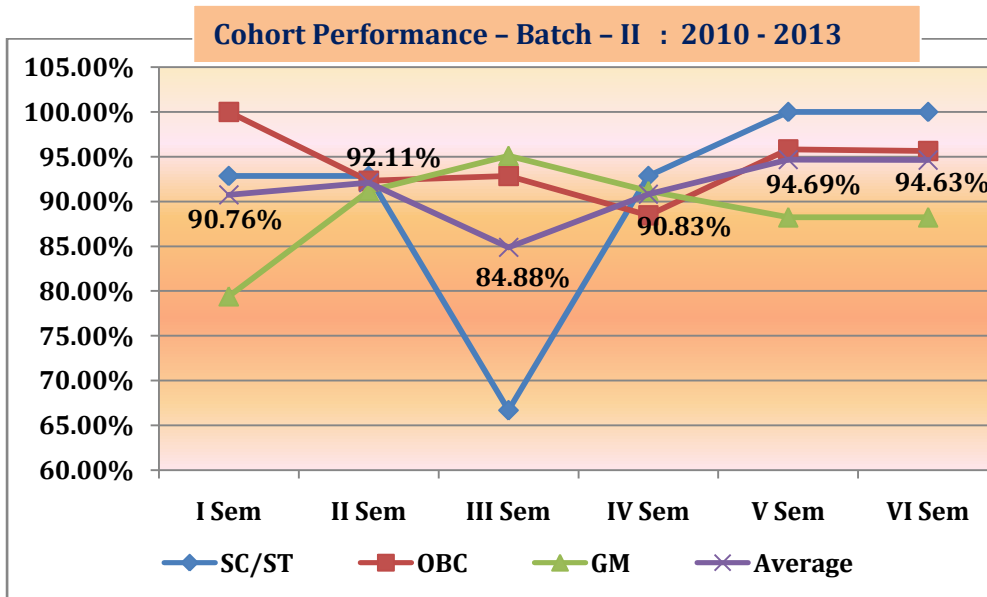
**Batch - I : 2009 - 12**

Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	100.00%	100.00%	91.67%	83.33%	91.67%	100.00%
OBC	86.67%	72.22%	100.00%	93.33%	86.67%	83.33%
GM	93.18%	97.56%	97.22%	97.22%	83.33%	91.11%
<b>Average</b>	<b>93.28%</b>	<b>89.93%</b>	<b>96.30%</b>	<b>91.30%</b>	<b>87.22%</b>	<b>91.48%</b>



**Batch - II : 2010 - 13**

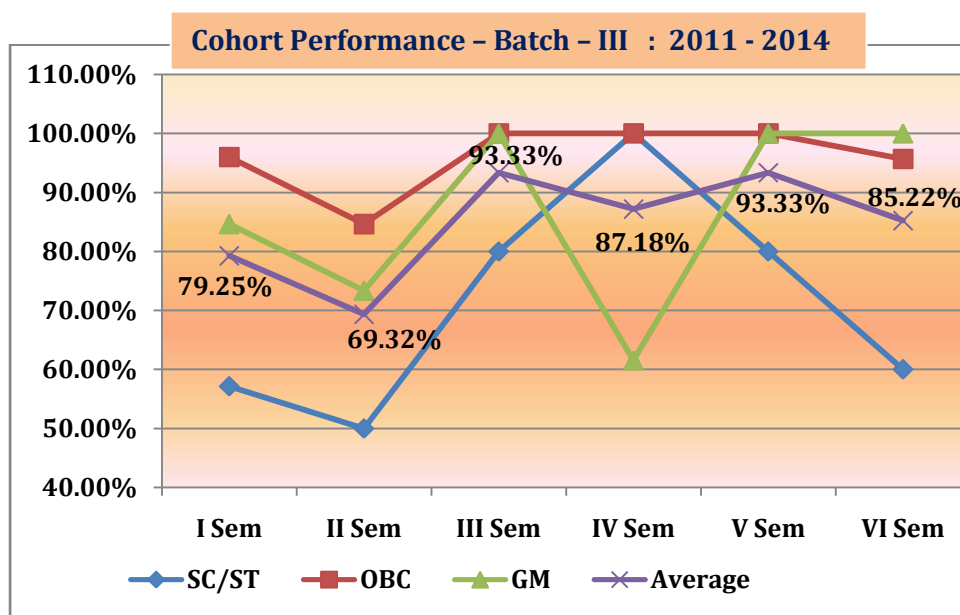
Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	92.86%	92.86%	66.67%	92.86%	100.00%	100.00%
OBC	100.00%	92.31%	92.86%	88.46%	95.83%	95.65%
GM	79.41%	91.18%	95.12%	91.18%	88.24%	88.24%
<b>Average</b>	<b>90.76%</b>	<b>92.11%</b>	<b>84.88%</b>	<b>90.83%</b>	<b>94.69%</b>	<b>94.63%</b>





**Batch - III : 2011 - 14**

Category	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
SC/ST	57.14%	50.00%	80.00%	100.00%	80.00%	60.00%
OBC	96.00%	84.62%	100.00%	100.00%	100.00%	95.65%
GM	84.62%	73.33%	100.00%	61.54%	100.00%	100.00%
<b>Average</b>	<b>79.25%</b>	<b>69.32%</b>	<b>93.33%</b>	<b>87.18%</b>	<b>93.33%</b>	<b>85.22%</b>



35. **SWOC Analysis and Future Plans:**

**Strengths**

- Dedicated teaching.
- Motivational skills to develop experiential learning in the subject.
- Adequate physical infrastructure and laboratory equipment.
- Academic planning and implementation.
- Highly efficient internal coordinating mechanism.
- Good peer support.

**Weaknesses**

- Accessibility to rural student because of factors like traffic jams
- Class Timings

### Opportunities

- Minor and major research projects funded by UGC.
- MOUs with Research labs.
- Creating awareness Programmes by holding guest lectures on health, environmental issues, study tours etc.

### Challenges

- Improving the results of low performing students.
- Bringing the Socially and Economically backward group students to mainstream.

### Future Plans:

- Acquiring state – of – art equipment and modernizing the laboratories
- Setting up study room for students in the department
- Starting Post graduation course in Zoology
- Utilizing the services of all retired teachers of the department to take Remedial coaching classes.

\*\*\*\*\*