

Evaluative Report of the Department

1. Name of the Department : **Zoology**
2. Year of establishment : **1921**
3. Is the Department part of a School/Faculty of the university? : **Yes.**
4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.) **M.Sc. in Zoology (PG) and Ph.D.**
5. Interdisciplinary programmes and departments involved:
6. Courses in collaboration with other universities, industries, foreign institutions, etc. : **No**
7. Details of programmes discontinued, if any, with reasons
8. Examination System: Annual/ Semester/Trimester/Choice Based Credit System :
Semester
9. Participation of the department in the courses offered by other departments :
10. Number of teaching posts sanctioned and filled and actual (Professors/Associate Professors/ Asst. Professors/Others)

	Sanctioned	Filled	Actual (including CAS & MPS)
Professor	09	07	07
Associate Professors	11	06	06
Asst. Professors	25	16	16
Others	-	-	-

11. Faculty profile with name, qualification, designation area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Prof. K.P. Joy	M.Sc. (Kerala Univ.) Ph.D. (BHU), FNA	Professor	Neuroendocrinology, Reproductive endocrinology	Teaching-35 Research- 38	12

Prof. (Mrs.) C.M. Chaturvedi	M.Sc. (Jabalpur Univ.) Ph.D. (BHU)	Professor	Endocrinology & Reproductive Physiology, Chronobiology, Radiation Biology	Teaching-36 Research- 38	10
Prof. (Mrs.) C. Halidar	M.Sc. Ph.D. (BHU)	Professor	Neuroendocrine Pineal gland		7
Prof. R. Raman	M.Sc., Ph.D. (BHU) FNA, FASc FNASc.	Professor	Cytogenetics and Molecular Genetics		2

Prof. M.K. Thakur	M.Sc. Ph.D. (BHU), FNASc.	Professor	Biochemistry and Molecular Biology	Doctoral - 3 Post-doc - 4 Teaching- 33	10
Prof. A. Krishna	M.Sc. Ph.D. (BHU)	Professor	Biology of Reproduction	35 years	12
Prof. Dinesh Kumar	M.Sc. Ph.D. (BHU)	Professor	Insect Physiology, Cell Physiology		
Prof. J.K. Roy	M.Sc. Ph.D. (BHU)	Professor	Developmental Genetics	28 years	8
Prof. S.K. Singh	M.Sc. Ph.D. (BHU)	Professor	Male Reproductive Endocrinology	32 years	04
Prof. T.K. Banerjee	M.Sc., Ph.D. (BHU)	Professor	Fish Biology	32 years	2
Prof. (Mrs.) M. Vinayak	M.Sc. Ph.D. (BHU)	Professor	Biochemistry, tRNA Cancer Biology		1
Prof. (Mrs.) N. Rasogi	M.Sc. (Delhi Univ.) M.Phil, Ph.D. (JNU)	Professor	Entomology	25 years	02
Prof. S.K. Trigun	M.Sc., Ph.D. (BHU)	Professor	Biochemistry (Protein Chemistry)		
Prof. P.L. Pakrasi	M.Sc. Ph.D. (Calcutta Univ.)	Professor	Reproductive Physiology of Fish, Environmental Endocrinology		1
Prof. Bechan Lal	M.Sc. Ph.D. (BHU)	Professor	Female Reproductive Physiology and implantation biology		2
Prof. A. Acharya	M.Sc. Ph.D. (Patna Univ.)	Professor	Immuno modulation, Apoptosis and Immunology		1
Prof. S. Prasad	M.Sc., Ph.D.	Professor	Biochemistry, Neuroscience	22 years	1
Dr. M. Singaravel	M.Sc. M.Phil Ph.D. (Madurai)	Asso. Prof.	Chronobiology		

Dr. Partha Pratim Manna	Kamaraj Univ.) M.Sc. Ph.D.	Asso. Prof.	Immunology		
Dr. S.K. Chaube	M.Sc. Ph.D.	Asso. Prof.	Cell Biology		
Dr. A.K. Singh	M.Sc. Ph.D.	Asso. Prof.	Population Genetics and Behavior Genetics	23	02
Dr. (Mrs.) Madhu Tap dia	M.Sc. Ph.D. (BHU)	Asstt. Prof.	Molecular Genetics, Drosophila Genetics Cytogenetics		1
Dr. (Mrs.) Swati Mittal	M.Sc. Ph.D. (BHU)	Asstt. Prof.	Fish Biology, Histology Histochemistry and Electron Microscopy	9 years	02
Dr. (Mrs.) Preeti S. Saxena	M.Sc. Ph.D. (Univ. of Rajasthan)	Asstt. Prof.	1. Cell and Molecular Biology 2. Toxicology		
Dr. Rajnikant Mishra	M.Sc. Ph.D. (BHU)	Asstt. Prof.	Biochemistry and Molecular biology, Molecular Genetics & Bioformatics		
Dr. Biplob Koch	M.Sc. (North Eastern Hill University), Ph.D.	Asstt. Prof.	Cytogenetics	05	03
Dr. Bhagyalaxmi Mohapatra	M.Sc., Ph.D.	Asstt. Prof.	Human Molecular Genetics	Teaching-3 Research-12	01
Prof. S.C. Lakhotia	M.Sc. Ph.D. (Calcutta Univ.) FNA, FASc., FNASc.	Emeritus Professor	Cytogenetics, Molecular Genetics		
Prof B.N. Singh	M.Sc., Ph.D., D.Sc. (BHU), FNASc	Emeritus Professor	Genetics and Evolutions	37	2
					Total-86

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

Prof. S.C. Lakhotia	M.Sc. Ph.D. (Calcutta Univ.) FNA, FASc., FNASc.	Emeritus Professor	Cytogenetics, Molecular Genetics
Prof. B.N. Singh	M.Sc., Ph.D., D.Sc. (BHU), FNASc, UGC- BSR Faculty Fellow	Emeritus Professor	<i>Drosophila</i> Evolutionary Genetics

13. Percentage of classes taken by temporary faculty - programme-wise information

14. Programme-wise Student Teacher Ratio

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Cadre	Sanctioned	Vacant	Actual
Ministerial	06	03	03
Technical	28	01	27
Professional	01	00	01
Group 'D'	03	00	03

16. Research thrust areas as recognized by major funding agencies

Name of Thrust Area (funding by CAS)

- (i) Biochemistry
- (ii) Cytogenetics
- (iii) Ecophysiology
- (iv) Reproductive & Endocrinology

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

1.	01 (UGC Research Project (2008-2011) - "Reproductive isolation in <i>Drosophila</i> " Rs. 8,44,300.00) + 01 (AK Singh) (UGC), Rs. 592800/=	Prof. B.N. Singh
2.	04 (i) ICMR- Ongoing (ii) UGC – Ongoing (iii) CSIR – Completed (iv) UGC - Completed	Prof. C.M. Chaturvedi
3.	i. Studies on delayed embryonic developments in <i>C. sphinx</i> : Role of metabolic factors. DST, 2007-2010, Rs. 19,88,000/- Completed ii. GnRH and GnIH: Expression pattern and physiological action in mouse. UGC, 2009-2012, Rs 7,28,800/- Completed iii. Studies on adiposity and its effects on ovarian activity in a vespertilionid bat. DBT, 2009-2012, Rs. 36.10,000/- Ongoing iv. Studies on sperm storage in female genital tract of <i>Scotophilus heathi</i> : Hormonal and metabolic regulation. DST, 2011-2014, Rs. 34,10,000/- Ongoing	Prof. A. Krishna
4.	02 DST 2007-2011 27,99,056/- DBT 2007-2010 17,16,000/- Total Rs 45,15,056	Prof. J.K. Roy
5.	03	Prof. S.K.

	(i) UGC, New Delhi: Project entitled, "Studies on antifertility effects of some indigenous plants in male mice", May, 2006 to October, 2009, Amount sanctioned: Rs. 6, 84,400/- (ii) DST (SERC) FAST Track Young Scientist grant: Project entitled, "Comprehensive evaluation of certain antidiabetic and antidepressant traditional medicines on male reproductive health and progeny outcome- an insight into prospective mechanism" (to my student, Dr. R. K. Mishra, in my laboratory), May 2006 to April, 2009, Amount sanctioned: Rs. 12, 66, 000/- (iii) DST, New Delhi: Project entitled, "Evaluation of antifertility potential of certain indigenous plants in male mice" December 2011 to November 2014, Amount sanctioned: Rs. 24, 86, 000/-	Singh
6.	01 DOD Govt of India Project Rs 500000	Prof. T.K. Banerjee
7.	02 1. UGC funded Major Research Project "Diversity and behavioural ecology of myrmecophilous arthropods associated with some ecologically dominant ant species" Duration: Three and a half years (1 st May 2009 to 31 st October 2012) Amount sanctioned: Rs. 7, 39,800/- 2. MoEF funded Major Research Project "Utilization of ants as bioindicators to monitor environmental pollution in coal mine spoils" Duration: Three years (1 st September 2010 to 31 st August 2013) Amount sanctioned: Rs. 15, 54, 904/-	Prof. N.K. Rastogi
8.	01 University Grants Commission. "Toxicity of dyeing chemicals used in carpet industry on the skin and gill of certain fresh water teleost." Period: 01.07.2011 to 30.06.2014 (3 years). Amount: Rs. 7,16,800.00	Dr. S. Mittal
9.	01 "Molecular Genetics of Congenital heart Disease"	Dr. B. Mohapatra
10.	01 Rs. 10.01 lakhs,UGC	Dr. B. Koch
		Total- 20

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration b) International collaboration

1.	<ul style="list-style-type: none"> All India collaboration: Prof Ashok kumar, Prof D Aggrawal, IMS , BIHU b) International : Prof Jeffrey Towbin, The Heart Institute, Cincinnati Ohio, USA 	Dr. B. Mohapatra
2	<u>All India collaboration:</u> <ul style="list-style-type: none"> All India Institute of Medical Sciences, New Delhi Defence Institute of Physiology and Allied 	Prof. M.K. Thakur

	Sciences, New Delhi • Jiwaji University, Gwalior • Indian Institute of Toxicology Research, Lucknow	
3	<u>All India collaboration:</u> • Northern Coalfield Ltd. • National Metallurgical Laboratory (CSIR), Jamshedpur	Prof. T.K. Banerjee
		Total- 08

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Funding agency	Sanction amount (Rs.)
DST-FIST	3.16 Crore (for 5 years)
DST-PURSE	20.00 Lakh (for 3 years)
CAS PHASE-V	1.49 Crore

20. Research facility / centre with

- state recognition
- national recognition ✓
- international recognition

21. Special research laboratories sponsored by / created by industry or corporate bodies

22. Publications:

- * Number of papers published in peer reviewed journals (national / international): **336**
- * Monographs : 01(KPJ) = **Total 01**
- * Chapters in Books 01(BNS)+04(MKT)+02 (A. Krishna)+01 (SKS)+01(NKR)+02 (TKB)+01 (SP)+01 (SwatiM) = **Total 13**
- * Edited Books 01(MKT)+01 (A.Krishna)+01 (SKS)+01(SP) = **Total 04**
- * Books with ISBN with details of publishers: 01(KPJ)+01(MKT)+ 01(SP) = **Total 03**
 (Prof K.P. Joy: - (9th ISRPF Symposium Proceedings). 1 (Published by Indian

Society for Education and Environment (ISFE) Suppl. Vol: 4 Issue: S8, ISSN: 0974-6846. Chennai).

Prof. S. Prasad: - ISBN 81-7319-582-X)

- * Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) 23 (BNS)+20(KPJ)30 (A.Krishna)+01 (JKR)+05 (SKS) = **Total- 79**

- Citation Index - range / average

Prof. BNS:- (2-9 per paper)/ average (14.92 - average citation per year for the last 5 years)

Prof. M.K. Thakur: - 0-73 (avg.-18.25)

Prof. A. Krishna: - 1 -16 / average 20.60

Prof. J.K. Roy (0-9)/3.35747 average

Dr. B.Mohapatra: - (range: 0 -213: average: 33.36)

Dr. A.K. Singh- 17

Prof. S.K. Singh- 7

Dr. S.Mittal - 0 - 9; 1.5

Average Total 14.497

- * SNIP

1.	<i>Indian J of Exp Biol</i> , 0.060 <i>Contraception</i> , 0.210 <i>Andrologia</i> , 0.090 <i>Food and Chem Toxicol</i> , 0.220	Prof. S.K. Singh
2.	Total: 9.096	Dr. S. Mittal

- * SJR

1.	<i>Indian J of Exp Biol</i> , 0.071 <i>Contraception</i> , 0.262 <i>Andrologia</i> , 0.149 <i>Food and Chem Toxicol</i> , 0.234	Prof. S.K. Singh
	Total: 1.102	Dr. S. Mittal

- * Impact Factor – range / average: (BNS)- (0.935-4.092)/ average (1.699)
 (KPJ)- 1.607 to 3.601
 (MKTakur)- 0.5-10/ 3.5 average
 (A.Krishna) 1.4 - 4.19 / average 3.1
 (S.K.Singh) - 2.25
 (JKR) - 1.747-5.968/2.898 average
 (SP) 2.5-5.5
 (S.Mittal) - 0.815 - 2.407;/ average 1.52
 (B.Mohapatra) (range: 1.95 - 11.5/average 4.86)
 (B. Koch) (2,478 to 3.357)

- * h-index:16(BNS)+17(KPJ)+04(SKS)+04(BM)+04(MKT)+ 6 (2007-12); overall h-index = 12 (A.Krishna)+761 (JKR)+03(AK Singh)+2(NKR)+469 (S.Mittal)

23. Details of patents and income generated

24. Areas of consultancy and income generated

25. Faculty selected nationally/ internationally to visit other laboratories/ institution/ industries in India and abroad

Prof. A. Krishna: - Visiting Scientist, Leipzig Medical Center, Leipzig, Germany, May- June, 2011

26. Faculty serving in

- a) National committees b) International committees c) Editorial Boards d) any other (please specify)

1.	(i) Member of Advisory Committee, SAP Programme (UGC), Department of Zoology, Calcutta University, Kolkata. (2007-12) (ii) Member, Standing Committee under National Mission on Education through Information and Communication Technology (NMEICT), Department of Higher Education, MHRD, New Delhi (2010)	Prof. B N Singh
2	1. Associate Editor, Fish Physiology & Biochemistry, Springer 2. Chairman, UGC Expert Committee to review CAS programme in Dept of Zoology, Visva Bharathi, Santiniketan. (C.) Editorial Boards: Member of Editorial Board: Frontiers in Behavioral and Psychiatric Genetics as Review Editor (2011)	Prof. K P Joy
3.	UGC Expert Review Committee for DSA/DRS/CAS Programme	Prof. C.M.

		Chaturvedi
4.	<p>1. Member, National Academy of Medical Sciences, 2009</p> <p>2. President, Indian Academy of Neurosciences, 2011 -14</p> <p>3. Member, Editorial Board, Current Aging Science, Bentham Publisher, USA, 2008</p> <p>4. Member, Editorial Board, Ageing & Society, CMIG, Kolkata, 2010</p> <p>5. Review Editor, Frontiers in Genetics of Aging, Switzerland, 2011</p>	Prof. MK Thakur
5.	<p>a) National committees: Member, SEC on Life Sciences for DST Women Scientist Scheme-A,;</p> <p>b) International committees: Nil</p> <p>c) Editorial Boards: Executive Editor of "Journal of Scientific Research, B.H.U., Varanasi, 2007-Present; Member, Editorial Board, "Journal of Ovarian Research" BioMed Sciences, USA</p>	Prof. A. Krishna
6.	<p>Edited one Special Issue of J Biosciences 36 (3) 2011</p>	Prof. J.K. Roy
	<p>a) National committees: SAP Advisory Committee Member, UGC, New Delhi</p> <p>b) International committees: Nil</p> <p>c) Editorial Boards: <i>World Journal of Biological Chemistry (WJBC)</i>, 2009-2013 <i>Indian Journal of Experimental Biology (IJB)</i>, 2011-2013</p> <p>d) any other (please specify)</p> <p>Has been member of faculty selection committee, either as subject expert or as Chancellor's nominee</p> <p>Member, Board of Studies, HNB Central University, Srinagar, Garhwal</p> <p>Reviewer for several journals in the area of male reproductive biology</p>	Prof. S.K. Singh
7.	<p>Member of the National Advisory Committee of the forthcoming 36th Annual Conference and a National symposium on "Live organisms and their expressions organized by Ethological Society of India and University of Calcutta in the environment" from 26th Nov.-28th Nov., 2012 to be held at Technology campus, University of Calcutta.</p>	Prof. N.K. Rastogi
8.	(C.) Editorial Boards: 02	Dr. A.K. Singh
9.	Associate Editor in "The Scientific Temper", Academy of innovative Research, Bemawal, Ambedkarnagar - 224 181	Dr. S. Mittal

27. Faculty recharging strategies (UGC,ASC,Refresher/Orientation programs, workshops, training programs and similar programs).

28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects

- percentage of students doing projects in collaboration with other universities / industry / institute

1.	Answer (A) Three (03) students have done project work on <i>Drosophila</i> under summer research fellowship programme sponsored by the Indian Academies of Science: 1.Mr Akash Kedia, Department of Botany, BHU, 2.Dr Priti Srivastava, Sunbeam College, Varanasi and 3. Mr Mayuk Mandal, IISER, Kolkata	Prof. B.N. Singh
	In house project - 05	Prof. C.M. Chaturvedi
	Answer (A) every year 01 or 02 students of M. Sc. doing project work	Prof. S.K. Singh
	Answer (B) 06	Dr. B. Mohapatra
	Answer (A) 03 Answer (B) 01	Dr. A.K. Singh
	9 students at M.Sc. ; 2 students at B.Sc.	Dr. S.Mittal

29. Awards / recognitions received at the national and international level by

- Faculty
- Doctoral / post doctoral fellows
- Students

1	(i) Recipient of Prof C N R Rao Education Foundation Award for Excellence in Scientific Research (2008) (ii) Recipient of the UGC-BSR Faculty Fellowship Award (2011) (iii) Appointed as Professor Emeritus, Banaras Hindu University (2012)	Prof. B.N. Singh
	National Level : (i) Recipient of Prof C N R Rao Education Foundation Award for Excellence in Scientific Research (2008) (ii) Recipient of the UGC-BSR Faculty Fellowship Award (2011) (iii) Appointed as Professor Emeritus, Banaras Hindu University (2012) International Level : In the list of 34 most prolific Researchers on <i>Drosophila</i> , occupying 24 th position at global level and the only <i>Drosophila</i> researcher from India, whose name is included in the list (Special Report published in DIS, 93: 232-243, 2010) Doctoral fellow : Ms. Chavali Vishalakshi got prize for poster	

	presentation in 31 st All India Cell Biology Conference and Symposium on Stem Cells: Applications and Prospects, December 2007, BHU. Post doctoral fellow: Dr. Seema Sisodia (P I-WOS-A-DST) received Travel Grant from DST to attend 22 nd European <i>Drosophila</i> Research Conference held at Lisbon (Portugal) in September 2011.	
2.	1. Elected fellow of INSA, New Delhi, 2012 2. Invited Lecture, 7 th AOSCE, Kuala Lumpur, March 2012 3. Chairman, 9 th ISRPF, Cochin	Prof. K P Joy
4.	Re-entry grant of Alexander von Humboldt Fellowship, Germany, 2011 Invited Lecture at Hyderabad University, Nov, 2009. Chaired session at Lucknow, Feb., 2010 Invited Lecture, Kumaun University, Nainital, May 15-16, 2012	Prof. A. Krishna
	Have been Invited Speaker/Session Chairman in several national symposia	Prof. S.K. Singh
	1. Invited to deliver a lecture at the forthcoming National seminar on the status of environment and biodiversity: Rio+ 20 and role of space technology. 2 - 3 November, 2012, at the Department of Zoology and Environmental Science Gurukula Kangri University, Haridwar, India 2. Keynote Lecture at the 8th International conference on Ants (ANet meeting 2011) Venue: Faculty of Science, Prince of Songkla University, Hat Yai, Thailand, during 17-21 October, 2011. 3. Lead Lecture at the 4 th International Conference on Plants & Environmental Pollution at NBRI, Lucknow India, during 8-11 December, 2010.	Prof. N.K. Rastogi
	1. Member of National Academy of Sciences (India), Allahabad) 2. Treasurer, Association of Gerontology (India) Students: - 1. Ms. Anupama Rani: 2 nd Prize for best oral Presentation at the International Hypoxia Meet, DIPAS, New Delhi, 2012 2. Mr. Pankaj Gaur: A.V. Tilak Prize of Association of Gerontology (India), 2012. 3. Dr. Kanchan Singh: Best Poster Presentation Prize, FAONS Meeting, 2010	Prof. S. Prasad

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.

1.	International Conference on Functional Genomics:Challenges and Prospects, Deptt. of Zoology, BHU, October, 2010-Convener- 01	Prof. B.N. Singh
	1. Brain aging and dementia 2. Brain Awareness Week 3. IAN-FAONS satellite symposium	Prof. M.K. Thakur
2.	Shall be organizing a "National Symposium on Recent Advances in Reproductive Health, 28-30 November, 2013.	Prof. S.K. Singh

3.	Organized: a National Symposium on a the topic, "Functional Biodiversity and Ecophysiology of Animals" during Feb. 21-23, 2009. It was funded by various government agencies (DST, ICMR, CSIR, ICAR, MoEF, DBT, BRNS) and BIU (CAS, Deptt. of Zoology; Science Faculty).	Prof. N.K. Rastogi
4.	(Symposium on Population Genetics and Chromatin Dynamics) worked as Treasurer - 01	Dr. A.K. Singh
Total		07

31. Code of ethics for research followed by the departments

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M.Sc.	186	23 Male	35 Female	100%	
Ph.D.	136	10 Male	09 Female	100%	

33. Diversity of students

Name of the Course (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc.	53.44	15.50	31.00	Nil
Ph.D.	09 No.	5 No.	4 No.	Nil

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

1.	GATE C. Vishalakshi Punita Nanda Akanksha Singh	NET Pranveer Singh Punita Nanda Parul Banerjee	Prof. B.N. Singh
	1. Mr. Arun Yadav – ICMR JRF 2. Rajiv Gandhi Fellowship- Rashmi Richa 3. Mr. Saumanshu Banerjee – CSIR JRF-NET 4. UGC RFMS- Vinit Saba Sahai 5. CRET- Sunita Yadav 6. Post Doc. – Dr. Rashmi Srivastava 7. DST Young Scientist - Dr. Rashmi Srivastava		Prof. C.M. Chaturvedi
	NET 10 Students		Prof. M.K. Thakur

	GATE: 01 (2010) NET-LS: 01 (June 2011)	Prof. S.K. Singh
	01- GATE	Prof. N.K. Rastogi
	Mr. Rajaneesh Gupta: CSIR NET Mr. Vinaya Nand Dwivedi: CSIR NET LS Mr. Rakesh Rai: UGC NET JRF Mr. Surya Prakash Pandey: GATE Ms. Anupama Rani: GATE	Prof. S. Prasad
	a) Ms. Amita Kumari Rai- CSIR-UGC-NET-LS b) Mr. Ashwini Kumar Nigam-CSIR-JRF c) Mr. Neeraj Verma- CSIR-UGC-NET-LS	Dr. S. Mittal
	01 One	Dr. B. Mohapatra
	Total	45

35. Student progression

Student progression	Percentage against enrolled
UG to PG	53.4%
PG to M.Phil.	-
PG to Ph.D.	45.00%
Ph.D. to Post-Doctoral	-
Employed	-
• Campus selection	
• Other than campus recruitment	
Entrepreneurs	-

36. Diversity of staff **N.A.**

Percentage of faculty who are graduates	
of the same university	16 (59.25%)
from other universities within the State	01 (3.70%)
from universities from other States	10 (37.03)
from universities outside the country	00

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period

1. Dr. B. Koch: - Awarded Ph. D in 2009

38. Present details of departmental infrastructural facilities with regard to

a) Library : Yes

b) Internet facilities for staff and students : **Yes**

c) Total number of class rooms **04**

d) Class rooms with ICT facility

e) Students' laboratories : **03**

f) Research laboratories: **02**

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/ university

b) from other institution/universities

1.	Doctoral fellow a) from the host university -- 4 (C. Vishalakshi, Punita Nanda, Parul Banerjee and Akanksha Singh) b) from other universities - 1 (Pranveer Singh) Post -doctoral fellow a) from the host university --- 1 (Dr. Seema Sisodia, DST Women Scientist) b) from other universities ---- NIL	Prof. B.N. Singh
2.	From Host University :- 10 PhD students, 1 RA	Prof. M.K. Thakur
3.	a) from the host university 3 b) from other universities 2	Prof. A.Krishna
4.	a) from the host university : 01 b) from other universities: 03	Prof. S.K. Singh
5.	a) from the host university: 01 (Dr. Usha Kumari, CSIR-Senior Research Associate)	Dr. S. Mittal
	Total	26

40. Number of post graduate students getting financial assistance from the university.

Prof. Tikaram Sharma Fellowship for M.Sc. (Final) students - 05

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

b) Internet facilities for staff and students : Yes

c) Total number of class rooms 04

d) Class rooms with ICT facility

e) Students' laboratories : 03

f) Research laboratories: 02

39. List of doctoral, post-doctoral students and Research Associates

a) from the host university

b) from other universities

1.	Doctoral fellow a) from the host university -- 4 (C. Vishalakshi, Punita Nanda, Parul Banerjee and Akanksha Singh) b) from other universities - 1 (Pranveer Singh) Post -doctoral fellow a) from the host university --- 1 (Dr. Seema Sisodia, DST Women Scientist) b) from other universities ---- NIL	Prof. B.N. Singh
2.	From Host University :- 10 PhD students, 1 RA	Prof. M.K. Thakur
3.	a) from the host university 3 b) from other universities 2	Prof. A.Krishna
4.	a) from the host university : 01 b) from other universities: 03	Prof. S.K. Singh
5.	a) from the host university: 01 (Dr. Usha Kumari, CSIR-Senior Research Associate)	Dr. S. Mittal
	Total	26

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Prof. Tikaram Sharma Fellowship for M.Sc. (Final) students - 05

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

42. Does the department obtain feedback from

- a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?
- b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?
- c. alumni and employers on the programmes offered and how does the department utilize the feedback?

43. List the distinguished alumni of the department (maximum 10)

S No	Name	Course studied (year)	Specialization	Present affiliation
1.	Prof J P Thapliyal	M Sc (1945) Ph D (1950)	Sexual cycles of Indian birds	c/o Dr A Thapliyal Nehru Shatabdi Chikitsalaya C-32, NSC, P O Jayant Sidhi 486 890
2.	Prof B K Patnaik	Ph D (1965)	Biochemistry of Aging	Behrampur, Orissa
3.	Prof S N Singh	Ph D (1966)	Pysiology of aging	Ex Head, Dept. of Zoology, BHU, Ganesh Dham, DLW Road, Varanasi
4.	Prof T Sharma	Ph D (1967)	Radiation and evolutionary Cytogenetics	Ex- Head, Department of Zoology, BHU
5.	Prof S P Shukla	Ph D (1967)	Aging and metabolic changes	Karaundi, Varanasi
6.	Dr J P Chaudhuri	Ph D (1967)	-do-	Germany
7.	Prof J P Gupta	M Sc (19 Ph D (1967)	<i>Drosophila</i> Taxonomy	Ex-Head, Department of Zoology, BHU, Varanasi 221 005
8.	Prof P G Kale	Ph D (1967)	-	Dept Biology, Albama A M University, Normal, AL 35762, USA
9.	Dr. Lalji Singh	M Sc (1966) Ph D (1971)	Molecular Cytogenetics, DNA finger printing, Human Genetics and Evolution	Vice-Chancellor, BHU, Varanasi- 221 005
10.	Prof A P Jha	Ph D (1967)	Cytogenetics	Ex-Professor, Dept Zoology, LNM University, Darbhanga

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

List of Guest Lectures delivered by external experts

Speaker	Date	Title
Dr. Rolff Dieter Wegner, Institute of Human Genetics, Berlin, Germany	22.02.2008	“Chromosomal aberrations in human embryogenesis”
Prof. Aparna Dutta Gupta, Central University, Hyderabad	27.02.2008	“Ecofriendly Insect Pest Management: Molecular Approach”
Prof Bhagyalaxmi Mohapatra, Baylor College of Medicine, Texas Medical Center, Houston, Texas, USA	12.07.2008	“Genetics of Congenital Heart Disease”
Prof Shanti Chandrashekar, Indian Institute of Agricultural Research, New Delhi,	10.09.2008	“Genetic studies on a <i>wnt</i> gene cluster in <i>Drosophila</i> ”
Prof. Debomoy K. Lahiri, Department of Psychiatry and of Medical and Molecular Genetics, Indiana University school of Medicine, Institute of psychiatric Research, USA.	18.11.2008	Lifespan profile of neuronal genes in rodents, primates and human: Early–Life environment affects gene expression in aging by epigenetic pathway
Prof. Phyllis Strauss, Matthews Distinguished Professor, Biology Department of Northeastern University Boston, USA	21.01.2009	The DNA repair protein APendonuclease Regulates Oxidative Stress in Zebrafish Embryo
Dr. G.C. Majumdar, AICTE Emeritus Fellow, Jadavpur University, Kolkata	24.01.2009	“Biochemical Parameters of Sperm Flagellar Motility Initiation and Regulation”
Dr. Rama S. Singh, Biology Department McMaster University, Hamilton, Canada	May 8, 2009	Darwin’s Legacy: Why evolution has not become a common sense and more
Dr. Pankaj K Alone, National Institute of Science Education and Resesrach (NISER), Bhubaneswar	July 21, 2009	Role of eIF2 in AUG codon fidelity
Prof. Volker Hartenstein, University of California, USA	July 29, 2009	Brain neuropile ultrastructure and neuronal microcircuitry
Dr. Indrajit Chowdhury, Department of Gynecology & Obstetrics, Morehouse Medical School, Atlanta, USA	August 29, 2009	Prohibitins mediate the effect of FSH and testosterone on granulosa cell differentiation
Dr. Lalji Singh, CSIR Bhatnagar Fellow, CCMB, Hyderabad	November 17, 2009	What makes us Human
Professor Daulat R.P. Tulsiani, Department of Obstrics & Gynecology, Vanderbilt University, Medical Centre, Nashville, U.S.A.	Feb. 26, 2010	Biology of Sperm Capacitation and Acrosome Reaction
Dr. Rohit Seth, Department of Biomedical Sciences, College of Medicine, Florida State University, U.S.A.	March 9, 2010	Neurobiology of Obesity and Leptin Resistance
Prof. Joseph W. Sanger, Professor and Chair, Department of Cell and Developmental Biology, Suny Upstate Medical University, Syracuse, New York.	March 10, 2010	Changing protein dynamics during myofibrillogenesis

Prof. Tapas K. Kundu, Molecular Biology & Genetics Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore,	22.04.2010	Acetylation of Chromatin and histone chaperon in transcription regulation: Implications in cancer manifestation and Therapeutics
Dr. Tanmay Mondal, Uppasla University, Sweden	26.07.2010	Epigenetic regulation and non coding RNA
Dr. Rajesh Srivastawa, Division of Reproductive Endocrinology, Department of Obstrutory and Gynecology, University of Rochester, New York, U.S.A.	22.10.2010	Preimplantation genetic diagnosis (PGD) and its clinical significance in human IVF
Prof. R. Pitchappan, Madurai Kamraj University, Madurai, Tamil Nadu	16.11.2010	Journey of man to Indian and Geographic
Prof. R. Pitchappan, Madurai Kamraj University, Madurai, Tamil Nadu	17.11.2010	Genomics and infections disease susceptibility
Dr. Prasenjit Guchhait, Scientist, Thrombosis Research Division, Cardiovascular Research Section, Department of Medicine, Baylore College of Medicine, Houston, U.S.A.	26.11.2010	New mechanism for the hemolysis induced thrombosis and vascular occlusion in patients with sickle cell anemia and B thalassemia: A development of antithrombotic therapeutic agents
Prof. Ashok Agarwal, Learner College of Medicine, Director, Centre for Reproductive Medicine & Director, Endocrinology Laboratory, Cleveland, Ohio 44195, USA	24.12.2010	Contemporary Research on Oxidative Stress and Male Fertility
Prof. S.C. Pandey, Director, Neuroscience Alcoholism Research, Department of Psychiatry, University of Illinois, Chicago, USA	24.01.2011	Neurobiology of anxiety and alcohol abuse disorders
Dr. R.R. Pandey, EMBL, France	02.02.2012	Molecular Insights into long non – coding RNA mediated transcriptional gene silencing
Dr. Rakesh Mishra, CCMB, Hyderabad	11.02.2011	Chromatin Domain Boundaries in Genome Organization and Developmental Gene Regulation
Dr. Sudhir Srivastava, Chief, Cancer Biomarkers Research Group, Division of Cancer Prevention, National Cancer Institute, Rockville, MD, USA	19.02.2011	Molecular Cancer Diagnostics: Promises and Challenges
Dr. Subha Tole, Department of Biological Sciences, Tata Institute of Fundamental Research, Mumbai	22.02.2011	Towards a Blue Print for Building the Brain
Prof. Subrata Sen, M.D. Anderson Cancer Institute, Houston, Texas, U.S.A.	21.02.2011	Why do cancer cells show chromosome number anomalies/ aneuploidy?
Prof. R.D. Vale, Investigator, Howard Hughes Medical Institute, Professor & Chair, Department of Cellular and Molecular Pharmacology, University of California, San Francisco	15.09.2011	The Cytoskeletal and Molecular Motors
Dr. Pravir Kumar, Assistant Director, Centre for Medical Engineering, Associate Professor of Biotechnology, VIT University, Vellore	29.09.2011	Stress proteins and Ubiquitin Proteasome System (UPS) in Neurodegeneration Disorders
Dr. Debomoy Lahiri, Professor of Neuroscience, Department of Psychiatry and Medical & Molecular Genetics, Indiana University School	22.12.2011	Biochemical links of Neurodevelopmental and Neurodegenerative disorders: APP, FMRP and mGluR5 are Molecular links

of Medicine, Indianapolis, IN, USA		
Dr. Sanjiv Kholkute, Director, National Institute for Research in Reproduction and Health (ICMR), Parel, Mumbai	21.01.2012	The Journey of Reproductive Endocrinology
Prof. M.A. Akbarsha, Director, Mahatma Gandhi-Doerenkamp Center (MGDC) for Alternatives to use of Animals in Life Science Education, Bharathidasan University, Tiruchirappalli	22.02.2012	1. Digital alternatives for anatomy and physiology 2. Delight of an andrologist with TEM
Prof. K. Subba Rao, INSA – Hon. Scientist, Center for Biotechnology, Institute of Science & Technology, Jawaharlal Nehru Technological University, Hyderabad	12.03.2012	On the beneficial effects of Amalki rasayana therapy in attenuating the age dependent change in DNA damage and DNA repair
Dr. Rakesh Mishra, Senior Scientist, CCMB, Hyderabad	17.09.2012	Interaction among the cis-regulatory elements of the biothorax complex and regulation of homeotic genes
Prof. Regina Markus, Institute of Biosciences, University of Sao-Paulo, Brazil	01.10.2012	The Immune-Pineal Axis - switch between pineal and extra pineal sources of Melatonin

45. List the teaching methods adopted by the faculty for different programmes. : **Using modern teaching gadgets like Powerpoint presentations, Audio-visual and usual black board and charts teaching.**

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

47. Highlight the participation of students and faculty in extension activities.

48. Give details of "beyond syllabus scholarly activities" of the department.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

51. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

Department of Zoology has been a pioneer department of the country for teaching and research. Incorporation of Animal Behaviour, and more recently, Molecular & Human Genetics, Molecular Endocrinology, Neurobiology, etc. in teaching has kept the department up-front. The growth and diversity in teaching has been made possible by the induction of progressive and

competitive faculty members whose in-depth research in diverse areas (such as biochemistry and molecular biology of ageing, molecular neurobiology, cancer, hormonal control of reproduction and body rhythms, insect and fish physiology, genetic and chromosomal evolution, function and regulation of non coding RNA) have not only added to the knowledge in frontier areas but created an ambience that stimulates creative research. This level of growth and progress has been possible largely due to development of state-of-the-art laboratories through a number of individual research projects to the faculty. In addition, UGC support in the form of Special Assistance Programme, elevated as Centre for Advanced Study, COSIST and DST's FIST support to the department have substantially contributed to the achievements of the Department in research and teaching. The scientific merit of the faculty has been recognized from time to time through honours and awards, such as Padma Shri, SS Bhatnagar Prize, Jawaharlal Nehru award, FICCI Award, Hari Om Trust award, UGC Cover Award, Vigyan Ratna, and fellowships of prestigious national and International and medical academies. The faculty members have been serving on editorial boards of various journals of international repute in their domains of expertise and as members of national and international governing bodies that formulate general policy/plans on research and education.

- Well equipped laboratories,
- Talented and highly motivated researchers,
- Multi-disciplinary and methodological expertise scientists resulting in trans-disciplinary collaboration,
- Strong link with masters programs in the area of life science i.e. Biochemistry, Cytogenetics, Endocrinology and Entomology and in Ph.D. programs,
- Strong research program leaders and research theme initiators,
- Large scientific output in terms of peer reviewed scientific papers, Ph.D. theses, external research funding,
- Focus on important and emerging research themes and target populations
- Well-organized data-management infrastructure,
- Good methodology and statistics support,
- Strong national/ international reputation of different specific groups and research themes within the faculty, and within each of the research programs.
- The department ensures team work with internal coordinator and mutual co-operation.

Weakness:

- Lack of over all funding and IT facilities.
- Strong dependency on external funding,
- Unclear division of roles between research institutes and faculties in defining and implementing research policy, strategy and operations,
- Lack of formal collaboration agreements with excellent international institutes,
- Relatively few international Ph.D. students,
- Lack of hostel facility and well equipped girls common room.

Opportunity:

- Various facilities and provisions for professional quality development of the teaching staff and non-teaching staff. The staffs are encouraged to participation in National & International conferences,
- Strong and extensive international contacts that provide opportunities for acquiring international funding and establishing more formal international collaborations,
- Growing role of interfaculty research institutes in shaping and implementing research policy and practice,
- Quality of research provides opportunities for continuous publications in highest ranking journals in the relevant fields,
- Strong international networks of research staff provide good opportunities for further internationalization.

Threats:

- Dependence more on external research funds and reduced permanent university funds,
- Lack of opportunities for talented junior staff/post docs
- Focus of funding agencies on implementation of the project and economic valorization.
- Growing strong competition in the field.

- Decrease in university funding because of budget cuts due to present national and international economic situation leading to decrease in availability of external funding because of the same reason;

52. Future plans of the department.

- To organize refresher and orientation courses,
- To organize seminar, symposia, workshops and conferences
- To setup research center,
- To develop infrastructural facility in the new premises.
- To develop fully computerized office, library, laboratory, and lecture rooms,
- To organize guidance classes for Ph.D. student for teaching practice.