

## Departmental Profile

1. Name of the Department- **Biotechnology**

2. Year of Establishment – **June 2013**

3. Infrastructure-

(a) Class Rooms available – Numbers and Covered area in Sqft. - **02**

(b) Laboratories – Numbers and Covered area in Sqft. - **01**

(c) List of Equipments lab wise-

S.No.	Name of Apparatus
1.	Autoclave
2.	Laminar air flow
3.	Tissue Culture Laminar air flow
4.	BOD Incubator
5.	Centrifuge
6.	Computer
7.	Compound Research Microscope
8.	Water Bath
9.	Electrophoresis Chamber Horizontal
10.	Electronic balance
11.	Deep Freezer (-20°C)
12.	LCD Projector
13.	pH meter
14.	Colorimeter
15.	Hot air oven
16.	Spectrophotometer
17.	Bacteriological Incubator
18.	Cooling Centrifuge
19.	Hot air oven

(d) Details of Departmental Library

Year	Books Purchased	Journal		CD's	e resources Subscribed	e journal Subscribed	Thesis
		National	International				
2013-14	Transfer from library, UG biotechnology dept and zoology dept- <b>90+25+133</b>	Nil	Nil	Nil	Nil	Nil	
2014-15	<b>30</b>						
2015-16	-						
2016-17	-						
2017-18	<b>47</b>						

#### 4. Courses offered-

Year	Courses	Intake			Actual enrollment			New courses offered
		UG	PG	Ph. D	UG	PG	Ph. D	
		60	15	-	60	15	-	Nil
2013-14	B.Sc, M.Sc	60	15	-	60	15	-	Nil
2014-15	B.Sc, M.Sc	60	15	-	60	15	-	Nil
2015-16	B.Sc, M.Sc	60	15	-	60	13	-	Nil
2016-17	B.Sc, M.Sc	60	15	-	60	13	-	Nil
2017-18	B.Sc, M.Sc	60	15	-	60	14	-	Nil

#### 5. Faculty Strength

No. of Teachers Available	Year				
	2013-14	2014-15	2015-16	2016-17	2017-18
Professors	Nil	Nil	Nil	Nil	Nil
Asstt. Professors	01	01	02	02	02
Regular	01	01	02	02	02
Adhoc	Nil	Nil	Nil	Nil	Nil
Contractual	02	02	Nil	Nil	Nil
Guest faculty	01	01	01	01	01
Visiting Faculty	Nil	Nil	Nil	Nil	Nil

**(Enclosed Annexure I)**

#### 6. Sanctioned , working strength and Vacant position (Faculty)

Category	Sanctioned			Working			Vacant			Grant total
	Prof.	Asstt. Prof.	Total	Prof.	Asstt. Prof.	Total	Prof.	Asstt. Prof.	Total	
Regular	01	02	03	Nil	02	02	01	Nil	01	03
Contract basis	Nil	Nil	Nil	Nil	01	Nil	Nil	Nil	01	01

#### 7. Qualification of Faculty

Category	No. of Ph.D.	No. Of M. Phil	Other	Total
Regular	01	01	CSIR-NET(JRF)- 02	02
Contract basis	01		01	01

#### 8. Non Teaching Staff-

- (i) Sanctioned- **02**
- (ii) Working – **02** **(Enclosed Annexure II)**
- (iii) Vacant – **Nil**

## 9. Research Profile

Year	Research Publication	Research projects	Seminar/conference/workshop/ synopsis	Other research and consultancy related activity
2013-14	02	Nil	01	1. Dr. Sanjana Bhagat - guided 03 M.Sc Dissertation Work
2014-15		Nil	11	Nil
2015-16	01	Nil	09	1. Dr. Sanjana Bhagat -guided 03 M.Sc Dissertation Work
2016-17	01	Nil	14	Nil
2017-18	02	Nil	06	1. Dr. Sanjana Bhagat- guided 05 M.Sc Dissertation Work 2. Mrs. Deepali Rajwade -guided 07 M.Sc Dissertation Work

**(Enclosed Annexure III and IV)**

Research project: **Nil**

S.No.	Name	Year	Title of the project	Funding agency

Seminar/ Conference/ Workshop/ Symposia: **Nil**

Name of the Department	Year	Title of the Seminar/ Workshop	Funding agency

## 10. Teaching learning methods adopted by the department List the methods.

In addition to the black board method of teaching, the following methods are also used

1. **Power point Presentation**
2. **seminar**
3. **Class test**
4. **Group Discussion**
5. **Demonstration**

## 11. Achievements of students (Provide details separately)

Year	Examination	Co curricular activities	Extracurricular activities
2013-14	B.Sc.I-75% B.Sc.II-97.62% B.Sc.III-100% M.Sc.IV-100%	1. <b>Parul Siyar</b> (2012-13)- Manager in Bank of Baroda, Pune	1. B. Sc. III year biotechnology students have visited Devleela biotech lab, Raipur on the date 15 January 2013.
2014-15	B.Sc.I-92.98% B.Sc.II-93.75% B.Sc.III-100% M.Sc.IV-100%	1. <b>Yogita Thakur</b> -presented poster in national seminar on Recent trends in the thrust areas of life science at shri guru tegh bahadur khalsa college, Jabalpur, Jan 10-11, 2015	Nil
2015-16	B.Sc.I-94.44% B.Sc.II-100% B.Sc.III-100% M.Sc.IV-100%	1. <b>Mr Santosh Bhaskar</b> - Sales Manager in Kasliwal Brother's Raipur  2. <b>Laksheshwar thaiwat</b> - Working in fertilizer company, Raipur  3. <b>Apoorva Joshi, ankita Sinha, Neetu kerkatta, Upendra singh mahobia</b> got consolation prize in model on "Make in India:Science & technology driven innovation"  4. <b>Apoorva Joshi</b> - Third prize in science poster 5. <b>Dikeshwari Sahu</b> - Participated in science poster  6. <b>Santosh Bhaskar &amp; Dikeshwari Sahu</b> Participated in "Make in India:Science & technology driven innovation"	Nil

2016-17	B.Sc.I- 94.44% B.Sc.II- 100% B.Sc.III- 100% M.Sc.IV-100%	<p>1. <b>Alpana rani xalxo</b>- qualify CSIR-UGC(LS) exam June 2017</p> <p>7. <b>Damyanti Thakur</b>- Participated in Science model exhibition on 27 and 27 feb 2017 science day celebration</p> <p>8. <b>Dristi verma</b>- First prize in science poster in on 27 and 27 feb 2017 science day celebration</p> <p>9. <b>Dristi verma, Vibhashree gupta</b> second prize in science model in 27 and 27 feb 2017 science day celebration</p> <p>10. <b>Shruti Vyas</b>- second prize in on elocution in 27 and 27 feb 2017 science day celebration</p>	<p>1. One day Technical Seminar at Department of Biotechnology for students, lab technician and lab attendant given by Mr. Suvojit Dutta, Area Sales Manager, Borosil Glass Works Limited, Date 24/07/2017</p>
2017-18	B.Sc.I-94.44% B.Sc.II-92.57% B.Sc.III-100% M.Sc.IV-92.0%	<p>1. <b>Gajendri</b> qualify CG SET 2017</p> <p>11. <b>Afreen anjum, Damyanti Thakur, Aarti, Shivani soni, Aaisha</b>- Third prize in science poster in model on silver nanoparticle 27-28 feb 2018 on science day celebration</p>	<p>1. Total 40 students of B. Sc. II and III year have visited different laboratories of IGKV, Raipur, Chhattisgarh on 5<sup>th</sup> December 2017.</p>

**(Enclosed Annexure V)**

**12. Achievements of Teacher.**

Year	Achievement of Teachers	Enclose Details Separately
2013-14	Nil	
2014-15	Nil	
2015-16	1. <b>Dr. Sanjana Bhagat</b> - PhD awarded in Biotechnology in the year 2016 from Bilaspur University, Bilaspur	<b>Enclosed Annexure VI</b>
2016-17	1. <b>Dr. Sanjana Bhagat</b> -2 <sup>nd</sup> Prize in oral paper presentation on “Fetal haemoglobin and $\beta$ -globin gene cluster haplotypes among sickle cell patients in Chhattisgarh” National CME on “ <b>Stem cell &amp; its application</b> ” organized by Department of Anatomy, RIMS, Raipur, April 12, 2017	<b>Enclosed Annexure VII</b>

2017-18	<ol style="list-style-type: none"> <li>1. <b>Mrs. Deepali Rajwade</b>-National Symposium 25.7.17 2<sup>nd</sup> Prize in Poster presentation</li> <li>2. <b>Mrs. Deepali Rajwade</b>-2<sup>nd</sup> Prize in Poster presentation in National Seminar 30.11.17 &amp; 01.12.17</li> </ol>	<b>Enclosed Annexure VIII and IX</b>
---------	---	--

### 13. Research scholars enrolled/ Ph. D. Awarded

Year	Name of Supervisor	Research Scholars enrolled	Research completed & Ph.D. awarded
2013-14	Nil	Nil	Nil
2014-15	Nil	Nil	Nil
2015-16	Nil	Nil	Nil
2016-17	Nil	Nil	Nil
2017-18	Nil	Nil	Nil

### Annexure enlist separately

Name of Supervisor	Title of the Research	Year of Registration	Year of Completion/ Ph.D. awarded
<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>

### 14. Board of studies Meeting-

Year	Date of meeting	Resolution passed	Remarks
2013-14	19/2/13, 30/10/13	Approved Syllabus	
2014-15	17/07/2015	Approved B.Sc. & M. Sc syllabus	
2015-16	26/04/2016	Approved question paper patterns and distribution of marks for B. Sc	
2016-17	06/05/2017	Changes in question paper pattern for M.Sc.	
2017-18	21/04/2018	Approved B.Sc. & M. Sc syllabus	

15. Selection of students for admission-

Year	Total application received	Admission given to candidate of minimum % on merit
2013-14		UG- 60, PG-15
2014-15		UG-57, PG-15
2015-16		UG-54, PG-13
2016-17		UG-54, PG-13
2017-18		UG-55, PG-14

16. Selection of contract appointment of teachers

Year	No. of Posts vacant	Application received	Appointment given to candidate on merit
2013-14	02	30	03
2014-15	01	33	01
2015-16	01	11	01
2016-17	01	08	01
2017-18	01	20	01

17. Extension activities done by the Department-

Year	Name of extension activity	Target group	Funds received from
2013-14	Nil	Nil	Nil
2014-15	Nil	Nil	Nil
2015-16	NIL	Nil	Nil
2016-17	NIL	Nil	Nil
2017-18	Total 20 students of B. Sc II and B. Sc III year were participated in science awareness program at Saraswati Sishu Mandir girls school,DDU Nagar, Raipur. Date-14/11/2018	B. Sc II and B. Sc III	Nil

**(Enclosed Annexure X)**

## 18. Facilities of recreation activities-

List of facilities available with the Department

Year	Recreation facilities developed	Funds received from
2013-14	Nil	Nil
2014-15	Nil	Nil
2015-16	Nil	Nil
2016-17	Nil	Nil
2017-18	Nil	Nil

## 19. Innovative reforms of the Department-

List of innovative practices under way in the department

Year	Innovative reforms taken	Target group	Impact of reform
2013-14			
2014-15			
2015-16			
2016-17			
2017-18			

## 20. Achievements of the Department-

S. No.	Items	Status before autonomy	Status at present
1	UG intake	60	60
2	PG intake	15	15
3	UG Programmes	B.Sc.	B.Sc.
4	PG Programmes	M. Sc	M. Sc
5	M.Phil/ Ph.D.	Nil	Nil
6	Research publication	12	12
7	Research projects	Nil	Nil
8	Organizing seminar/ Conferences	Nil	Nil
9	Attending seminar/ conference		
10	Extension activities	01	01
11	Consultancy	Nil	Nil
12	Faculty	02 Regular + 01 Guest faculty	02 Regular + 01 Guest faculty
13	Faculty with Ph.D.	02	02
14	Infrastructure	Class Rooms-02, Lab-01	Class Rooms-02, Lab-01
15	Library	325 books in the department	325 books in the department
16	Result analysis	<b>Enclosed Annexure XI</b>	<b>Enclosed Annexure XI</b>
17	Placement	-	-
18	Any other	-	-



**Annexure I**  
**List of Faculty**

<b>Name</b>	<b>Designation</b>	<b>Qualification</b>	<b>Pay</b>	<b>Total experiences</b>	<b>No. of years in the college</b>
Dr. Sanjana Bhagat	Assistant Professor	M. Sc, M. Phil, PhD in Biotechnology, CSIR-NET(JRF)	15600-39100+6000/-AGP	06 Years	06 Years
Mrs. Deepali Rajwade	Assistant Professor	M.Sc in Biotechnology CSIR-NET(JRF)	15600-39100+6000/-AGP	04 Years	04 Years
Dr. Alka	Guest Faculty	M.Sc, PhD in Biotechnology, CSIR-NET(LS)	-	Nil	Aug 2018- Till date

**Annexure II**  
**List of Non Teaching Staff**

<b>S.No</b>	<b>Name</b>	<b>Post</b>
<b>1.</b>	Mr. Vijay Dhruw	Lab technician
<b>2.</b>	Mrs. Anita Gendre	Lab Attendant

## **Annexure III**

### **Details of Research profile of Dr Sanjana Bhagat**

#### **1. Research Publication:**

<b>S. No.</b>	<b>Author Name</b>	<b>Year</b>	<b>Title</b>	<b>Name of Journal</b>	<b>Vol.</b>	<b>Page No.</b>
<b>1.</b>	<b>Sanjana Bhagat, PK</b>	2013	Fetal haemoglobin and $\beta$ -globin gene cluster haplotype	J Clin Diagn Res	7 (2)	269-272

	Patra, AS Thakur		among sickle cell patients in Chhattisgarh			
2.	<b>Sanjana Bhagat,</b> Lakheshwar Thawait	2018	Bioremediation of lead by lead resistant bacterial isolates isolated from contaminated soils of Chhattisgarh	Research J. of Pharmacy & technology	11(10)	4456-2559
3.	<b>Sanjana Bhagat,</b> AS Thakur	2018	Influence of $\beta$ -Globin haplotypes on oxidative stress, antioxidant capacity and inflammation in sickle cell patients of Chhattisgarh	Ind J Clin Biochem		<a href="http://doi.org/10.1007/s12291-017-0729-3">http://doi.org/10.1007/s12291-017-0729-3</a>

## 2. Detail of Seminar/ Conference/ Wokshop:

Year	Seminar/conference/Workshop/ synopsis	Other Research
2013-14	1. Participated in Orientation Program from 01.07.2013 to 28.07.2013	Guided 03 M.Sc dissertation work1. 1.Niharika Sahu 2.Ritu Sai 3.Sneha Kulbhaje
2014-15	1. Short term course (7days) on “ <b>Research methodology</b> ” organized by ASC, Pt. Ravishankar Shukla University, Raipur (C.G) held from November 13-19, 2014.  2. Five one day RUSA sponsored Workshops on “ <b>Quality education, Governance, leadership &amp; Management, Examination reforms, Strategies development and excellence in higher system, Career guidance</b> ” at Govt. N.P.G Science College, Raipur from June 23-2, 2015.	
2015-16	1. Participated in National Seminar on “ <b>Conservation of Plant Diversity: Global Issues</b> ” at Dr. Radhabai Govt. Naveen Kanya Mahavidyalaya, Raipur, August 07, 2015.  2. National Seminar on “ <b>Innovations&amp; Prospects in Biotechnology</b> ” organized by Department of Biotechnology, Pt. RSU, Raipur, January 02-04, 2016  3. National Conference on “ <b>Prospects in Life Sciences: Paradigm Shift in Teaching and Research in Zoological Sciences</b> ”, organized by Department of Zoology, Govt. Nagarjuna P.G. College of Science, Raipur, March 02-03, 2016  4. Invited lecture delivered on Molecular analysis of sickle cell disease by PCR-RFLP method. CME on “Recent advances in medical sciences”, Department of Biochemistry, Govt. Medical College, Jagdalpur(C.G), November 21, 2015.  5. Invited lecture delivered on Laboratory instruments and its uses. Capacity-building workshop on “laboratory techniques & maintenance” organized by Govt. N. P.G. College of Science, Raipur, November 18-20, 2015.  6. Participated in refresher course in “Life Science” from 01.07.2013	Guided 03 M.Sc dissertation work  1.Santosh Bhaskar 2.Lakheshwar 3.Digeshwari

	to 28.07. 2013 at HRDC, Ranchi University, Ranchi.	
2016-17	<ol style="list-style-type: none"> <li>1. 3<sup>rd</sup> National workshop (7days) on “<b>Trends and techniques in chronobiology</b>” organized by school of life science, Pt. RSU, Raipur held from March 21-27, 2017</li> <li>2. Five One Day RUSA sponsored Workshops on “<b>Higher education and improvement quality of higher education, Examination reforms, CBCS system, collection of data and analysis</b>” at Govt. N. P. G Science College, Raipur from June 20, 22-24, 2017</li> <li>3. Presented oral paper on “Fetal haemoglobin and <math>\beta</math>-globin gene cluster haplotypes among sickle cell patients in Chhattisgarh” National CME on “<b>Stem cell &amp; its application</b>” organized by Department of Anatomy, RIMS, Raipur, April 12, 2017</li> </ol>	
2017-18	<ol style="list-style-type: none"> <li>1. Participated in National Conference on “<b>Current Development of Environmental Sciences in Chhattisgarh State</b>” at Bhilai Mahila Mahavidyalaya, Bhilai, November 30- 01 December, 2017</li> <li>7. Participated in refresher course in “Food and Biotechnology” from 31.01.2018 to 20.02. 2018 at HRDC, Ranchi University, Ranchi.</li> </ol>	Guided 05 M.Sc dissertation work 1. Afreen Anjum 2. Shruti vyas 3. Poornima 4. Gajendri 5. Amit Hota

## Annexure IV

### Details of Research profile of Mrs. Deepali Rajwade

#### 1. Research Publication:

S.No.	Name	Year	Title	Name of Journal	Volume	Page no.
1.	Deepali Rajwade & P.K.Saluja	2014	Microbial metabolism of oil sludge: Isolation & Characterization of Chrysenes degrading bacteria	Indian J. Applied & Pure Bio	29	185-194
2.	Deepali Rajwade, K.K.Patel	2016	Detection of resistance pattern, extended spectrum Beta lactamase producing clinical isolates of <i>E.coli</i> & <i>K.pneumoniae</i>	Int. Journal of Applied Research	02	523-525
3.	Deepali Rajwade & Sadhana Jaiswal	2017	A Review on Portulaca oleraces (Nonia bhaji): A wonderful weed of Chattisgarh.”	Research J. of Pharmacy & technology	10	2415-2420

## 2. Detail of Seminar/ Conference/ Wokshop:

Year	Research Publication	Research Projects	Seminar/Conference/Workshop	Other Research & Consultancy related activity
2013-14	Nil	Nil	Nil	Nil
2014-15	1		1. Five one day workshops from 23.6.15 to 27.6.15	
2015-16			1. National Symposium 25.7.17 2. Seven days Hands on workshop 26.7.15 to 01.08.15. 3. National Seminar 07.08.15	
2016-17			1. Orientation Program 7.1.17 to 3.2.17 2. Poster presentation National Seminar 27.1.17 & 28.01.17 3. Five One Day Workshops 20.6.17 to 27.6.17	
2017-18			1. National Symposium 25.7.17 2 <sup>nd</sup> Prize in Poster presentation 2. Seven days Hands on Workshop 26.7.17 to 01.08.17 3. Disaster Awareness Training at 09.12.17 4. 2 <sup>nd</sup> Prize in Poster presentation in National Seminar 30.11.17 & 01.12.17	Guided 7 M.Sc. students for dissertation ( 1.1.18- 30.4.18)

## Annexure V

### Detail of Student Achievements

Year	Examination	Co curricular activities	Extracurricular activities
2013-14	B.Sc.I- 75% B.Sc.II- 97.62% B.Sc.III- 100% M.Sc.IV- 100%	2. <b>Parul Siyar</b> (2012-13)- Manager in Bank of Baroda, Pune	1. B. Sc. III year biotechnology students have visited Devleela biotech lab, Raipur on the date 15 January 2013.
2014-15	B.Sc.I- 92.98% B.Sc.II- 93.75% B.Sc.III- 100% M.Sc.IV-100%	2. <b>Yogita Thakur</b> -presented poster in national seminar on Recent trends in the thrust areas of life science at shri guru tegh bahadur khalsa college, Jabalpur, Jan 10-11, 2015	Nil
2015-16	B.Sc.I- 94.44% B.Sc.II- 100% B.Sc.III-100% M.Sc.IV-100%	12. <b>Mr Santosh Bhaskar</b> - Sales Manager in Kasliwal Brother's Raipur  13. <b>Lakheshwar thaiwat</b> - Working in fertilizer company, Raipur	Nil

		<p>14. <b>Apoorva Joshi, ankita Sinha, Neetu kerkatta, Upendra singh mahobia</b> got consolation prize in model on “Make in India:Science &amp; technology driven innovation”</p> <p>15. <b>Apoorva Joshi-</b> Third prize in science poster</p> <p>16. <b>Dikeshwari Sahu-</b> Participated in science poster</p> <p>17. <b>Santosh Bhaskar &amp; Dikeshwari Sahu</b> Participated in “Make in India:Science &amp; technology driven innovation”</p>	
2016-17	<p>B.Sc.I- 94.44%</p> <p>B.Sc.II- 100%</p> <p>B.Sc.III- 100%</p> <p>M.Sc.IV-100%</p>	<p>2. <b>Alpana rani xalxo-</b> qualify CSIR-UGC(LS) exam June 2017</p> <p>18. <b>Damyanti Thakur-</b> Participated in Science model exhibition on 27 and 27 feb 2017 science day celebration</p> <p>19. <b>Dristi verma-</b> First prize in science poster in on 27 and 27 feb 2017 science day celebration</p> <p>20. <b>Dristi verma, Vibhashree gupta</b> second prize in science model in 27 and 27 feb 2017 science day celebration</p> <p>21. <b>Shruti Vyas-</b> second prize in on elocution in 27 and 27 feb 2017 science day celebration</p>	<p>1. One day Technical Seminar at Department of Biotechnology for students, lab technician and lab attendant given by Mr. Suvojit Dutta, Area Sales Manager, Borosil Glass Works Limited, Date 24/07/2017</p>
2017-18	<p>B.Sc.I-94.44%</p> <p>B.Sc.II-92.57%</p> <p>B.Sc.III-100%</p> <p>M.Sc.IV-92.0%</p>	<p>2. <b>Gajendri</b> qualify CG SET 2017</p> <p>22. <b>Afreen anjum, Damyanti Thakur, Aarti, Shivani soni, Aaisha-</b> Third prize in science poster in model on silver nanoparticle 27-28 feb 2018 on science day celebration</p>	<p>1. Total 40 students of B. Sc. II and III year have visited different laboratories of IGKV, Raipur, Chhattisgarh on 5<sup>th</sup> December 2017.</p>

## Annexure VI

### Detail of Extension Activities

**2018-2019- (Extention activity)-** Total 20 students of B. Sc II and B. Sc III year were participated in science awareness program at Saraswati Sishu Mandir girls school, DDU Nagar, Raipur. Date-14/11/2018





## Annexure VI

### Result Analysis

Year	Class	Appeared	Pass	Pass%
2013-14	B.Sc. I	60	45	75%
	B.Sc. II	42	41	97.62%
	B.Sc. III	28	28	100%
	M.Sc IV	15	15	100%
2014-15	B.Sc. I	57	53	92.98%
	B.Sc. II	48	45	93.75%
	B.Sc. III	38	38	100%
	M.Sc IV	15	15	100%
2015-16	B.Sc. I	54	51	94.44%
	B.Sc. II	48	48	100%
	B.Sc. III	46	46	100%
	M.Sc IV	13	13	100%
2016-17	B.Sc. I	53	51	94.44%
	B.Sc. II	51	47	92.15%
	B.Sc. III	41	41	100%
	M.Sc IV	13	12	92.0%
2017-18	B.Sc. I	55	54	98%
	B.Sc. II	52	52	100%
	B.Sc. III	45	45	100%
	M.Sc IV	14	13	92.85%



