Evaluative Report of the Department of Botany

1. Name of the Department

Botany

2. Year of Establishment

- 1955
- 3. Is the Department part of the faculty of the university?
- Yes
- 4. Names of Program offered (UG, PG, M.Phil, Ph.D. Integrated Masters, Integrated Ph.D. D.Sc. D.Lit. etc)
- M.Sc., M.Phil, Ph.D. D.Sc.
- **5.** Interdisciplinary programmes and departments involved
 - M.Sc. (Biotech),
 Diploma (PostGraduate
 Diploma in
 Medicinal
 Plants, PGDMP),
 Diploma (PostGraduate
 Diploma in Plant
 Biotechnology,
 PGDPBT)
- 6. Courses in collaboration with other universities,industries, foreign, institutions, etc.None
- 7. Details of programme discontinued, if any, with reasons

None

8. Examination System

- Semester
- **9.** Participation of the department in the courses offered by other departments

- Yes

10. No. of teaching posts sanctioned, filled and actual.

| | Sanctioned | Filled | Actual (CAS & MPS) |
|---------------------|------------|--------|--------------------|
| Professor | 2 | 9 | 5 MPS 4 CAS |
| Associate Professor | 5 | 0 | 0 |
| Asst. Professor | 7 | 1 | 1 |
| Others | | | |

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

| Name | Qualification | Designation | Specialization | No. of Years of Experi- ence | No. of Ph.D. | No. of M.Phil. | No. of D.Sc |
|--|--|--|--|---------------------------------------|--------------------|----------------------|-------------------|
| Prof. (Dr.) Ramesh Kumar Pandey | M.Sc, Ph.D. | Professor | Biotechnology, Plant Physiology and Ethnobotany | 40 | 7 | 0 | 0 |
| Prof. Dr. Pramod Kumar Pandey | M.Sc, Ph.D. | Professor | Plant Pathology | 42 | 3 | 2 | 0 |
| Prof. (Dr.) Anjani Kumar Srivastava | M.Sc, Ph.D. LL.B (Gold Medalist), Naef-Roth Foundation Post Doctoral Fellow (Zurich, Switzerland) | Professor & Dean, Faculty of Science, Ranchi University, Ranchi. | Microbiology, Plant Pathology, Phytobacteriology | 40 | 8 | 0 | 0 |
| Prof (Dr) Shashi Ku- mar Sinha | M.Sc. Ph.D | Professor | Algal biotechnology | 37 | 7 | 0 | 0 |
| Prof Ashok Kumar Choudhary | M.Sc, Ph.D. | Professor | Plant Physiology Ethnobotany and Biotechnology | 37 | 5 | 0 | 1 |
| Prof. Dr.(Ms.) Kamini Kumar | M.Sc, Ph.D. | Professor | Cytogenetic, Plant Breeding, and Ra- diation Genetics. | 34 | 11 | 2 | 0 |
| Prof. Dr. (Ms.) Kunul Kandir | B.Ed, M.Sc, Ph.D, D.Sc | Professor | Plant taxonomy, Ethnobotany Medicinal Plants, Plant Tissue culture, Plant Pathology | 34 | 6 | 5 | 0 |
| Late Prof. Dr. Heem Bachan Sahu | M.Sc, Ph.D,L.L.B. | Professor | Plant Pathology | 36 | 4 | 0 | 0 |
| Prof Jyoti Kumar | M.Sc, Ph.D. LL.B | Professor | Microbiology & Plant Pathology, Phytobacteriology, Ethnobotany and Medicinal Plants | 35 | 8 | 5 | 1 |

| Prof. Dr. Hanuman Prasad Sharma | M.Sc, Ph.D. | Professor | Plant physiology, Molecular biology Biotechnology, Ethnobotany | 36 | 9 | 7 | 1 |
|--|-------------|--------------------|---|----|---|---|---|
| Dr. Radha Krishna Jha | M.Sc, Ph.D. | Asst. Professor | Plant Pathology, Ecology (Environ- mental Science) and Ethnobotany | 20 | 2 | 0 | 0 |

- 12. List of senior visiting fellows, adjunct faculty, emeritus professors
- Dr. J.V.V. Dogra (Visiting Fellow), Former HOD of Botany, TM Bhagalpur University, Bhagalpur
- 13. Percentage of classes taken by temporary faculty
- 100% in M.Sc. (Biotech)
- 14. Programme-wise student Teacher Ratio.

| Course | Student | Teacher |
|---------|---------|----------|
| M.Sc. | 9 (1) | |
| M.Phil. | 4 | 111 |
| M.Sc. | 20 | |
| M.Sc. | 10 | |
| M.Phil. | 10 | 1/()/31/ |
| Other | 26 | |

15. No. of Academic support staff & administrative staff.

| Non Teaching Staff | Sanctioned | Filled | Actual |
|---------------------------|-------------------|--------|--------|
| Support Staff (Technical) | 5 Class III Staff | 3 | 3 |
| Administrative Staff | 13 Class IV staff | 2 | 2 |

- **16. Research thrust areas as recognized by major funding agencies**Ethnobotany, Medicinal plants, Microbiology, Plant pathology, Phytobacteriology, Ecology, Cytogenetics, Plant Breeding, Molecular Genetics, Tissue culture, Oncology
- 17. Number of faculty with ongoing projects from (a) National (b) International funding agencies & (c) Total grant received. Give the name of funding agencies, project title & grants received project wise.
 - (a) No. of Faculty with Ongoing Projects Funded by National Funding Agency

| Title | | Agency | Project | Grants |
|--|----------|--------|---------|-----------|
| Antiproliferative activities and Biochemical analysis of some Plant extracts with special reference to breast cancer cell lines (MCF-7 & T47D) | National | UGC | Major | 10,51,800 |
| Ethnobotanical Studies of Ranchi District | National | UGC | Major | 5,48,200 |
| Preparation of Chromosome atlas and karyotypic analysis of important medicinal plants of Ranchi | National | UGC | Minor | 2,00,000 |

(e) Name of the funding agency — Not applicable

18. Inter-institutional collaborative projects & associated grants received

- (a) National Inter-Institutional Collaborative Projects
 - 1. Collaborative Ph.D. Research Project with Jadavpur University, Kolkata
 - 2. Collaborative Ph.D. Programme with Veterinary College, Birsa Agriculture University, Kanke, Ranchi
- (b) National Inter-Institutional Collaborative Project's Grants Received
- (c) International Inter-Institutional
 Collaborative Projects None
- (d) International Inter-Institutional
 Collaborative Project's Grants Received None
- 19. Department projects funded by DST-FIST, UGC-SAP/CAS, DPE, DBT, ICSSR, AICTE, etc; total grants received
 - (a) Departments Project Funded by UGC
 - (b) Total Grants Received Rs 1800000/-
- 20. Research facility center with
 - (a) Research Facility with State Recognition None
 - $\begin{tabular}{ll} \textbf{(b)} & \textbf{Research Facility with National Recognition} & & \textbf{Ethnobotany}, \\ \end{tabular}$

Medicinal plants, Microbiology, Plant Pathology, Phytobacterio-

None

logy, Ecology, Cytogenetics, Plant Breeding, Molecular Genetics, Tissue culture, Oncology

- (c) Research Facility with International Recognition
- None
- 21. Special research laboratories sponsored by/created by industry or corporate bodies
- None

22. Publications

| Name | No. of Papers: National | No. of Papers: Interna- tional | Mono- graphs | Chapters in Books | Edited Books | Books | Awards |
|--------------------------------------|-------------------------------|---|-----------------|-------------------|-----------------|-------|--------|
| Prof (Dr.) Ramesh Kumar Pandey | 30 | 2 | 0 | 0 | 0 | 0 | 0 |
| Prof Dr. Pramod Kumar Pandey | 10 | | 0 | 1 | 0 | 0 | 0 |
| Prof (Dr) Anjani Kumar Srivastava | 15 | 25 | 0 | 0 | 1 | 0 | 2 |
| Dr. Shashi Kumar Sinha | 5 | 4 | 0 | 0 | 0 | 0 | 1 |
| Prof Ashok Kumar Choudhary | 39 | 4 | 0 | 0 | 0 | 2 | 0 |
| Prof Dr.(Ms.) Kamini Kumar | 3 | 79 | 0 | 2 | 1 | 71 | 2 |
| Prof Dr. (Ms.) Kunul Kandir | 24 | 7 | 0 | 0 | 8 5/ | 0 | 4 |
| Late Prof Dr. Heem Bachan Sahu | 43 | 0 | 0 | 5 | 2 | 0 | 0 |
| Prof Dr. Hanuman Prasad Sharma | 57 | 18 | 0 | 12 | 3 | 2 | 4 |
| Prof Jyoti Kumar | 0 | 60 | 0 | 3 | 0 | 2 | 6 |
| Dr. Radha Krishna Jha. | 7 | 17 | 0 | 1 | 0 | 0 | 0 |

| Name | No. listed in International Database | Citation Index | SNIP | SJR | Impact Factor | h-index |
|------------------|--|-------------------|------|------|------------------|---------|
| Prof Jyoti Kumar | None | 51 | None | None | 2-3 | 4 |
| Prof H.P. Sharma | None | 79 | None | None | 2-3 | 5 |

For the remaining faculties no data is available

23. Details of patents and income generated

24. Areas of consultancy and income generated

| Prof Jyoti Kumar | Consultancy of Documentation of Ethno medicinal Plants with |
|------------------|---|
| | AYUSH, Government of Jharkhand Income generated NIL |

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

- Prof (Mrs) Kunul Kandir selected to visit Universiti Teknologi Mara, Malaysia in 2015
- 2. Prof Hanuman Prasad Sharma selected to visit University of Terengganu, Malaysia in 2012
- 3. Prof Hanuman Prasad Sharma selected to visit Kumamoto University Japan in 2011
- 4. Dr. Shashi Kumar Sinha Biwa Lake Research, Institute, Japan, Ramsar Meet in Shiga prefecture, Otsu.
- 5. Dr. Shashi Kumar Sinha Inamori Foundation, Kyoto Japan Kyoto Prize Laureates Commemoration and Banquet, Workshop.
- 6. Dr. Shashi Kumar Sinha York University, Yorkshire U.K (Two times)

26. Faculty serving in

(a) National committees

| Prof Jyoti Kumar | topathological Society, | - | Councillor, The Indian Botanical Society, Meerut |
|------------------|-------------------------|---|--|
| | Delhi | | |

(b) International committees

- None

- None

(c) Editorial Boards

| Prof Dr. Hanuman Prasad Sharma | Executive Editor International Journal of Biosciences and Engineering |
|-----------------------------------|---|
| | 2. Associate Editor Agrobios India |
| | National Referee Jam J of Research, International Reviewer |
| | Executive Editor, Ranchi University Journal of Science and Technology |
| Prof Dr. Pramod Kumar Pandey | Ranchi University Journal of Science and Technology |
| Prof Jyoti Kumar | Chief Editor, The Biobrio, Executive Editor of Biospectra International Journal Ranchi University Journal of Science and Technology |

| Prof (Dr.) Anjani Kumar Srivastava | Chief Editor, Ranchi University Journal of Science & Technology Editor, BIOSPECTRA |
|---------------------------------------|---|
| Prof (Mrs.) Kamini Kumar | Executive Editor Ranchi University Journal of Science and Technology Biospectra International Journal |
| Prof Ashok Kumar Choudhary | Editor, Ranchi University Journal of Science & Technology |
| Prof (Mrs.) Kunul Kandir | Executive Editor, Ranchi University Journal of Science & Technology |
| Prof Shashi Kumar Sinha | Executive Editor, Ranchi University Journal of Science & Technology |
| Dr R.K.Jha | Executive Editor, Ranchi University Journal of Science & Technology |

(d) any other (please specify)

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

| Name | No. of Orientation/ Refresher Courses Attended in the Last 4 Years | No. of Lectures De- livered as Resource Person in ASC/Any other Institution in the Last 4 Years | |
|-------------------------------------|--|---|--|
| Prof (Dr.) Ramesh Kumar Pandey | 0 (() | 4 | |
| Prof Dr. Anjani Kumar Srivastava | 0 | 3 | |
| Prof Ashok Kumar Choudhary | 0 | 27 | |
| Dr. Shashi Kumar Sinha | Principal's orientation course Attended Workshop at In- amori Foundation Japan | 5 | |
| Prof Dr. Hanuman Prasad Sharma | 0 | 8 | |
| Prof Dr. (Ms.) Kamini Kumar | Course Co-ordinator in the 63 rd & 82 nd Orientation Program of HRDC Ranchi University | One genetic Engineering: A mechanistic approach. | |
| Late Prof Dr. Heem Bachan Sahu | 0 | 0 | |
| Prof Dr. (Ms.) Kunul Kandir | 0 | 0 | |
| Prof Jyoti Kumar | 0 | 9 | |
| Dr. Radha Krishna Jha. | 5 | 1 | |

28. Student Projects

- (a) Percentage of students who have done in-house projects including inter departmental projects
- None
- (b) Percentage of students doing projects in collaboration with other universities/industries/institute
- None
- 29. Awards/recognitions received at the national international level by
 - (a) Faculty

- Prof Dr. Hanuman
 Prasad Sharma
 Senior Scientist
 Award (2014),
- Prof Dr. (Ms.)
 Kunul Kandir
 Eminent Scientist
 Award (2015),
- Dr. R.K. Pandey,Dr. A.K.Srivastava,
- (b) Doctoral/post doctoral fellows
- (c) Students

- None
- 30. Seminar/Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.
 - 1. National Symposium Advances in Phytopathological Researches in Globalized Era with reference to Eastern region- was organized by the Department in collaboration with Indian Pathological Society (IPS).
 - 27th Zonal Annual Meeting of IPS, eastern Zone was held Funding Ranchi University, Ranchi. 2015,
 - 3. 39th All India Botanical Conference of Indian Botanical Society and National Symposium to be held in October 2016
- 31. Code of ethics of research followed by the departments

Yes

32. Student profile programme-wise:

| Name of the Programme | Applications Received | Selected | | Pass Percentage | | |
|-----------------------|--------------------------|----------|--------|--------------------|--------|---------|
| | | Male | Female | Male | Female | |
| M.Sc. (Bot) 2012-2014 | 68 | 6 | 28 | 11 | 89 | |
| M.Sc. (Bot) 2013-2015 | 57 | 2 | 34 | 4 | 96 | |
| M.Sc. (Bot) 2014-2016 | 62 | 2 | 29 | | | ongoing |

| M.Sc. (Bot) 2015-2017 | 117 | 12 | 49 | | | ongoing |
|---------------------------|-----|----|----|-----|-----|---------|
| M.Sc. (Biotech):2012-2014 | 50 | 2 | 29 | 100 | 100 | |
| M.Sc. (Biotech):2013-15 | 37 | 2 | 23 | 100 | 100 | |
| M.Sc. (Biotech):2014-16 | 55 | 2 | 20 | | | ongoing |
| M.Sc. (Biotech):2015-17 | 60 | 6 | 26 | | | ongoing |
| M. Phil. 2012-2013 | 70 | 3 | 29 | | | |
| M. Phil. 2015-2016 | | 4 | 6 | | | ongoing |

33. Diversity of students:

| Name of the Programme | % of Students from the same University | % of Students from other Universities within the State | % of Stu- dents from Universities Outside the State | % of Students from other Countries |
|--------------------------|--|--|---|---|
| M.Sc. (Bot) 2011-2013 | 84 | 16 | 0 | 0 |
| M.Sc. (Bot) 2012-2014 | 97 | 3 | 0 | 0 |
| M.Sc. (Bot) 2013-2015 | 100 | 0 | 0 | 0 |
| M.Sc. (Bot) 2014-2016 | 74 | 26 | 0 | 0 |
| M.Sc. (Bot) 2015-2017 | 59 | 41 | 0 | 0 |
| M.Sc. (Biotech) 2011-13 | 66 | 34 | 0 | 0 |
| M.Sc. (Biotech) 2012-14 | 90 | 10 | 0 | 0 |
| M.Sc. (Biotech)2013-15 | 76 | 24 | 0 | 0 |
| M.Sc. (Biotech) 2014-16 | 86 | 14 | 0 | 0 |
| M.Sc. (Biotech) 2015-17 | 63 | 37 | 0 | 0 |
| M.Phil. | 88 | 12 | 0 | 0 |
| Ph.D. | 60 | 40 | 0 | 0 |

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

| Examination | Numbers |
|--------------------------------|---------|
| Civil Services examinations | |
| Defence Services examinations | |
| NET | 4 |
| SET | 5 |
| GATE | 3 |
| Other Competitive Examinations | |

35. Student Progression:

| Student Progression | % Against Enrolled |
|-----------------------|--------------------|
| UG to PG | |
| PG to M.Phil | 20 |
| PG to Ph.D | 35 |
| Ph.D to Post-Doctoral | 0 |

| Employed | |
|------------------|----|
| Campus Selection | 25 |
| • other | |

36. Diversity of staff:

| Percentage of Faculty Who are Graduates | | | | |
|--|---------------|--|--|--|
| of the same university | 100 (BOTANY) | | | |
| from the other universities within the state | | | | |
| from universities from other state | 100 (BIOTECH) | | | |
| from universities outside the country | | | | |

37. No. of faculty who were awarded M.Phil, Ph.D., D.Sc., and D.Litt. during the assessment period

(a) M.Phil. - None
 (b) Ph.D. - None
 (c) D.Sc. - 1
 (d) D.Litt. - None

38. Present details of departmental infrastructural facilities with regard to

(a) Library — Books 8755
(b) Internet facilities for staff and students — Yes
(c) Total number of class rooms — 48
(d) Class rooms with ICT facility — 48
(e) Student laboratories — 4
(f) Research laboratories — 6

39. List of Doctoral, Post-doctoral students & Research Associates

| S. No. | Name of Candidate | Name of Supervisor | Title | Date |
|-----------|-----------------------|------------------------------|---|------------|
| 1 | Raj Narayan Sahu | Dr. Ashok Kumar Choudhary | In vitro studies on Agrobacterium mediated ge- netic transformation of coleus forskohlii | 12/01/2011 |
| 2 | Umesh Kumar Prasad | Sri. Rajesh Kumar | Cytological embryological and bio-chemical studies in some grassus (Pociceae) of Chotanagpur | 03/02/2011 |
| 3 | Anamika | Dr. (Mrs.) Kamini Kumar | Ethnomedicinal survey and Pharmacogonostical studies of some important medicinal plant found in Topchanchi wild life sanetuary, Dhanbad | 21/04/2011 |

| | Kalpana Varma | Dr. (Mro.) Cushma | Marphotovonomical study of | 21/04/2011 |
|------|-----------------------------|--------------------------------|--|------------|
| 4 | Kalpana Verma | Dr. (Mrs.) Sushma Dash Guru | Morphotaxonomical study of Algal Flora of Ranchi District from diverse aquatic habitas | 21/04/2011 |
| 5 | Rajesh Sinha | Dr. Radha Krishna Jha | Ethnobotanical studies of Bish- nugarh Block of Hazaribagh District, Jharkhand | 26/04/2011 |
| 6 | Suman Kumari | Dr. A.K. Bariar | Cytotaxonomic and indued chromosomal mutation studies in Genus Pisum and allied genera | 26/04/2011 |
| 7 | Fauziya Basri | Dr. H.P. Sharma | Tissue culture and molecular characterization of some local varieties of Rice (Oryza sativa L.) cultivated by ethnic communities of Jharkhand | 16/07/2011 |
| 8 | Alok Ranjan | Dr. H.P. Sharma | Experimental morphoganic studies of medicinal plants, phytochemical evaluation and anti microbial activities cultivated by ethnic communities of Jharkhand | 16/07/2011 |
| 9 | Talat Ara | Dr. Ashok Kumar Choudhary | Prospects of Agrobacterium rhizogenes inducid genetic transformation of Withania somnifera (L.) Dunal | 09/12/2011 |
| 10 (| Miss Swet Nisha Sangeeta | Dr. Ashok Kumar Nag | Tissue culture studies on some important plants & preparation of digital herbaria, used against Malaria in chotangpur, region of Jharkhand | 13/12/2011 |
| 11 | Miss Shefa Parveen | Dr. Ashok Kumar Nag | Ethnobotanical & important plants along with their digital herbaria used against Diabetes in Ranchi district of Jharkhand State | 13/12/2011 |
| 12 | Lalan Kumar Sharma | Dr. H.P. Sharma | Study on plants used by Eth- nic communities of Jharkhand State for contraceptive Prac- tices, reproductive Problems, Pregnancy, Child birth and Post Partum recovery | 16/12/2011 |
| 13 | Mrs. Arapna Sinha | Dr. Ishwari Prasad Gupta | Study on plants used by indisenous peuple of Jharkhand for urinary diseases | 22/02/2012 |
| 14 | Sheocharan Oraon | Dr. (Mrs.) Malti Kerketta | Investigation on plnats cur- ing skin diseases in traditional medicinal system in Ranchi District of Jharkhand | 01/03/2012 |
| 15 | Nayeema Khatoon | Dr. Ashok Kumar Choudhary | Morphogenic and Ethnomedicianal studies of a Medicinal plant Solanum torvum | 27/04/2012 |

| 16 | Rupa Verma | Dr. Ashok Kumar | Study on the effect of Anti- | 27/04/2012 |
|----|--------------------|-------------------------------|--|------------|
| 10 | nupa venna | Choudhary | Microbiol Petotide A pidaecin on plants against bacterial and fungal Pathogrns | 21/04/2012 |
| 17 | Salomy Kujur | Dr. (Mrs.) Kunul Kandir | Ethnomedicinal and phyto chemical studies of Harja (Rice - Beer) used by some important tribes of south Jharkhand | 28/04/2012 |
| 18 | Miss Sarita | Dr. Ashok Kumar Nag | Ethnobotanical and morphogenic studies along with their digital herbaria of some important plants used against Jaundice in Ranchi Dist. of Jharkhand | 28/04/2012 |
| 19 | Amit Patnaik | Dr. H.P. Sharma | Studies on the effect of some anti-cancer plants on HeLa and SiHa cell lines of cervical can- cer and screening of Bio-Active couspomds | 26/04/2012 |
| 20 | Smrity Prabha | Dr. Jyoti Kumar | Studies on some medici- nal Plants of Ranchi District (Jharkhand) with special ref- erence to their Antifunges Activities against Phytopatho- genic Fungi | 17/05/2012 |
| 21 | Saloni Swaroopa | Dr. Ashok Kumar Choudhary | Studies on the germination, plant growth and development of mung bean (Vigna rabcata L.) due to the effect of water pollution of Deoghar (Jharkhand) | 18/05/2012 |
| 22 | Arshia Naaz | Dr. Ashok Kumar Choudhary | Studies on the germination, plant growth and development of broad bean (Vicia faba L.) due to the effect of industrial effluents of heavy engineering corporation Ranchi (Jharkhand) | 18/05/2012 |
| 23 | Mrs. Deepika | Dr. Ashok Kumar Nag | Survey documentation and preparation of digital herbaria of trees of Ramgarh District of Jharkhand | 18/05/2012 |
| 24 | Parash Jain | Dr. H.P. Sharma | Studies on Anti-Proliferative activies of some plant extracts on plant Tumors and Breast Cancer cell lines (MCF - 7 & MDA - MB - 435) | 10/07/2012 |
| 25 | Monalisha Saha | Dr Anjani Kumar Srivastava | Studies on the pathogenicity of seed borne storage Fungi of cow pea (Vigva sinesis L.) of Ranchi District and their control | 26/07/2012 |

| 26 | Afrin Nazli | Dr. (Mrs.) Kamini Kumar | Internation ships and cytological studies on medicinally important plants Aloe and Haworthia under the influwnce of some heany metals | 10/08/2012 |
|----|------------------------|------------------------------|---|------------|
| 27 | Preety Prasad | Dr. Ajay Kumar Srivastava | Analysis of antimicrobiol effects of some herbal extracts against oral pathogens | 13/12/2012 |
| 28 | Punam Kumari | Dr. Anil Kumar | Study of Antifungal effect of Ethnomedicinal plant with spe- cial reference to Skin disease in Ranchi district of Jharkhand | 13/12/2012 |
| 29 | Richa Sinha | Dr. (Mrs.) Kamini Kumar | Cytotaxonomy and comparative Cytological analysis of chemi- cal mutagens in Urginea | 19/01/2013 |
| 30 | Shila Kumari | Dr. (Mrs.) Kunul Kandir | Morphotaxonomical and phytochemical studies on some ethnomedicinal plants used on anti-ageing sourtus in Ranchi Dist. of Jharkhand | 19/01/2013 |
| 31 | Chitra Sharma | Dr. (Mrs.) Nirja Jha | Studies on Ethnomeditional plants of family Bignoniaceae of Ranchi Dist. and Phytochemistry of some of its important plants | 11/04/2013 |
| 32 | Suresh Kumar Munda | Sri Rajesh Kumar Jha | Studies on the combined effects of EMS and gamma rays on Lathyrus sativus L. | 18/05/2013 |
| 33 | Md. Nesar Ansari | Sri Rajesh Kumar Jha | Studies on combined effects of Ethyl Methan Sulfonate and Colchicine on Hordeum vulgare | 18/05/2013 |
| 34 | Reena Bhattacharjee | Dr. H.P. Sharma | Study on root induction mediated through Agrobacterium rhizogenes and secondary metabolites enhancement in some medicinal plnats with dicitors | 22/11/2013 |
| 35 | Sacchi Sneha | Dr. Ashok Kumar Choudhary | Studies on the efficacy of plant expracts in controlling certain fungal diseases of plants in Dumka (Santhal Per- gana) of Jharkhnad | 15/02/2014 |
| 36 | Miss Nita Verma | Dr. Ashok Kumar Nag | Ethnobotanical and morphogenic studies of some important antituberculosis plants, along with their digital herbaria in Ranchi District of Jharkhand State | 30/04/2014 |

| | | 4 | | |
|----|------------------------------|----------------------------|--|------------|
| 37 | Rinku Paul | Dr. P.K. Pandey | 16.12.2014 Studies on certain physiological characteristics of Sclerotina sclerotiorum the causal organism of stem not disease in chick pea in Ranchi Jharkhand | 16/12/2014 |
| 38 | Anjali Kumari | Dr. P. K. Pandey | Management of Soiborne phy- topathogens by native isolatus of Trichodarma in context of Jharkhand | 16/12/2014 |
| 39 | Sneha Sahay | Dr. Jyoti Kumar | Pharmacognostical and biochemical studies of eth- nomedicinal plants of some members of family verbenace- ae and Their uses against few plant pathogenic bacteria | 09/02/2015 |
| 40 | Abiha Abdali | Dr. (Mrs.) Kamini Kumar | Studies on Cytotaxonomy and effect of Ethyl Methane Sulphonate on different varieties of Avena sativa L. | 09/02/2015 |
| 41 | Sumit Kumar Pathak | Dr. Jyoti Kumar | Ethnomedicinal, Cytotaxonomical, Pharmacognostical and Biochemical studies of genus Oxalis growing in Ranchi | 14/02/2015 |
| 42 | Richa Sinha | Dr. (Mrs.) Kamini Kumar | Cytotaxonomy and comparetive Cytological analysis of chemi- cal Mutagens in Urginea | 14/02/2015 |
| 43 | Sarita Lohra | Dr. (Mrs.) Kamini Kumar | Cytological and biochemical studies in the genus Tinospora | 31/03/2015 |
| 44 | Jaya Kachhap | Dr. (Mrs.) Kunul Kandir | Phytochemical studies on Ethnomedicinal plants wused against diabetes Mellitus | 12/05/2015 |
| 45 | Nuzhat Afroz | Dr. (Mrs.) Salini Lal | Study of the effect of abiotic stress on growth and secondary metabolite production of few medicinal plant species of Jharkhand | 12/05/2015 |
| 46 | Sashi Suman Tirkey | Dr. (Mrs.) Kunul Kandir | Morphotaxonomical and phytochemical studies on some ethnomedicinal plants used against mental disorder among children in Kanke Block, Ranchi Dist. of Jharkhand | 13/05/2015 |
| 47 | Miss Sayyeda Kaneez Fatma | Dr. (Mrs.) Kunul Kandir | Morphological and phy- tochemical studies on some ethnomedicinal plants used against Jaundice in Ranchi Dist. of Jharkhand | 13/05/2015 |

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| 48 | Sagufta Parween | Dr. (Mrs.) Kunul Kandir | Morphotaxonomical and phytochemical studies on some ethnomedicinal plants used in high and low blood pressore in Ranchi dist. of Jharkhand | 14/05/2015 |
|----|----------------------------|--------------------------------|---|------------|
| 49 | Bhanu Priya | Dr. Radha Krishna Jha | Studies on ethnomedicinal plants used in remedy of Tuberculosis and phytochemical analysis of some plants with special refernce to Ranchi district, Jharkhand | 14/05/2015 |
| 50 | Sanjay Kumar Hembrom | Dr. Jyoti Kumar | Ethnomedicinal and Morphotax- onomic studies of some plants used to cure curtain diseases by the santhal tribe of district Sahibganj, Jharkhand | 16/05/2015 |
| 51 | Ladli Rani | Dr. Ramesh Kumar Pandey | Molecular characterization of endophytic diazotrophic bac- teria associated with some indigenious rice of Jharkhand | 12/12/2015 |
| 52 | Shalini Minz | Dr. Anjani Kumar Srivastava | Isolation, Characterization and purification of Acidtoler- ant Rhizobium obtained from soil of north chotanagpur of Jharkhand | 12/12/2015 |
| 53 | Neelima Kumari | Dr. Anjani Kumar Srivastava | Nutraceutical studies on wild edible mushrooms growing in Ranchi Dist. Jharkhand India | 15/12/2015 |
| 54 | Abhishek Prasad Sahu | Dr. Radha Krishna Jha | Studies on the effect of some abiotic stress on Solanum lycopersicum L genome and protin expression | 25/01/2016 |
| 55 | Preety Kumari | Dr. Ashok Kumar Choudhary | Ecological Audit and exotic species invasion of Betla National Park Palamu, Jharkhand | 17/02/2016 |
| 56 | Geeta Mahto | Dr. Jyoti Kumar | Efficacy of some chemicals on the Pathogenesis of Xanthomo- nas compestris Pv. Vesicatoria with some species of Lycoper- sicon esculentum Mill | 29/02/2016 |
| 57 | Mrs. Dolly Promila Bara | Dr. (Mrs.) Kunul Kandir | Phytochemical evaluation of some of the ethnomedicinal plant used to induce labour pain | 29/02/2016 |
| 58 | Ranjana Kumari | Dr. Anjani Kumar Srivastava | A study on ethnomedicinal and nutraceutical properties of Ma- hua (Madhuca indica J.F.Gmd.) for sustainable development of rural Jharkhand | 05/04/2016 |

| 59 | Birbal Nag | Dr. Ashok Kumar | Systemeatic study of Algal flora relation to some ecological factors of chhath talab, Semdega, Jharkhand | 08/04/2016 |
|----|----------------------------|--------------------------------|---|------------|
| 60 | Binit Baraik | Dr. Salini Lal | Molecular study on effect of abiotic stress on secondary metabolite production in some important medicinal plant | 08/04/2016 |
| 61 | Kumari Priya | Dr. H. P. Sharma | Studies on phytochemicals antioxidant and enzymatic inhibition proparties of some medicinal plants having insulin mimetic activity | 29/04/2016 |
| 62 | Dipa Mahto | Dr. H.P. Sharma | Studies on some ethnomedici- nal plants for their anticancer efficacy against oral cancer cell lines, phytochemistry and anti oxidant activites | 07/05/2016 |
| 63 | Shahla Firdaus | Dr. (Mrs.) Kamini Kumar | Studies on Cytotaxonomy and enfluance of chemical mutagen on different varities of zingiber officinale Rosc | 11/05/2016 |
| 64 | Sonam Rani | Dr. Anjani Kumar Srivastava | A study on ethnomedicinal and nutraceutical properties of Ragi/Marua (Eleusine cora- cana Gaertn) in Jharkhand | 11/05/2016 |
| 65 | Dr. Prasanjit Mukherjee | Dr. Jyoti Kumar | The Floristic studies of aquatic and semi aquatic angiosperms vis-a-vis their ecomomic importance in Jharkhand | 25/02/2014 |
| 66 | Dr. Uma Sanker Singh | Dr. Ashok Kumar Choudhary | Carbon sequestration in different components of various tree species in planted forest of Utter Pradesh | 16/02/2015 |

40. No. of post graduate students getting financial assistance from the university

- 1. 4 BPL students are given Rs 500/- each per month
- 2. MA topper is appointed as Teaching Assistant for one year & is given Rs 4000/- per month
- 3. PhD entrance test topper is also appointed as Teaching Assistant for two years and is given Rs 5000/- per month

41. Was any need assessment exercise undertaken before the development of new programmes? if so, highlight the methodology

Before to development self-financed new vocational courses in M.Sc. (Biotech), Post-Graduate Diploma in Plant Biotechnology (PGDPBT) and Post- Graduate Diploma in Medicinal Plants (PGDMP) syllabi of different Universities all over the India were procured and thoroughly consulted with the experts to design labs and course structure so that world class

update Post-Graduate Programmes can be catered to students aspiring for the higher education

- 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?

- Feedback is utilized for improving the teaching methodology and research activities.
- Feedback is
 utilized for
 improving the
 teaching style/
 standard of
 faculties and
 also to run the
 practical's
 smoothly as per
 the international
 standards.
- Feedback and experiences of the Alumni members are invited for overall up gradation of the department.

43. List of Alumni

| Name | Post | |
|----------------------|---|--|
| Dr. K.K. Nag | Ex-Vice Chancellor | |
| Mr. Pradip Kumar | Chief Conservator of Forest | |
| Mr. Ashok Pandey | Chief Conservator of Forest | |
| Mr. Kalyan Chaterjee | Chief Conservator of Forest | |
| Uma Shankar Singh | Chief Conservator of Forest | |
| Dr. Anand Bhusan | Chairman Jharkhand Academic Council (JAC) | |
| Mr. B.K. Sinha, | Retd. I.G Police, Jharkhand | |
| Dr. Javed Ahmad, | Rtd. Principal, Marwari College, Ranchi | |
| Mr. Narendra Bhagat, | Rtd. IAS | |
| Dr. Ram Pravesh, | Rtd. Principal, Doranda College | |

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

| Name & Address | Sub. of Lecture | Date |
|---|---|------------|
| Mrs. Ranee Prakash (Tiwary), Curator, Flowering plants, Department of Life Science (Plant Division), Natural His- tory Museum, South Kensington; U.K | APG III system of classification of Flowering plants | 11.04.2014 |
| Mrs. Ranee Prakash (Tiwary), Curator, Flowering plants, Department of Life Science (Plant Division), Natural History Museum, South Kensington; U.K. | Collection of Plants and Preparation of Herbarium | 11.04.2014 |
| Dr. A.K. Pandey Professor, Delhi University, Delhi | The Changing Paradigm of Angiosperm systematics. | 17/05/2014 |
| Dr. A.K. Pandey Professor, Delhi University, Delhi | Molecular Taxonomy | 17/05/2014 |
| Dr. A.K. Pandey Professor, Delhi University, Delhi | Naming of plants: ISBN to ICN | 18/05/2014 |
| Ms Gouri Nerkar DAAD Fellow (Germany) | Plastid transformation in plants | 22/07/2014 |
| Ms Gouri Nerkar DAAD Fellow (Germany) | How to get a foreign scholarship including DAAD etc and also Post-doctoral fellowship under awareness programme | 22/07/2014 |
| Dr. P.B. Nandkar Emeritus Professor and Ex Head Department of Botany, Nagpur University, Nagpur | Biological Nitrogen Fixation | 01/09/2014 |
| Dr. Shiba Prasad Rath, Emeritus Professor, Department of Botany, Utkal University, Bhubaneswar | In-vitro studies on Medicinal plants | 09/07/2015 |
| Dr. Ajit Bharti Assistant Professor, University of Boston, USA | Molecular to Mechanisms | 16/07/2015 |
| Dr. Ashok Panigrahi, Emeritus Professor, Department of Botany, Berhampur University, Odisha | Industrial Pollution and Waste Phyto remediation | 20/08/2015 |
| Swadha Roy, Consultant of Marketing at IT | Behavioral Competence in Learning | 03/09/2015 |
| Dr. C.K. Panda, Senior Assistant Director and Head, Department of Oncogene Regulation, Chittaranjan National Cancer Institute, Kolkata | Molecular Genetics of Cancer | 15/02/2016 |

45. List the teaching methods adopted by the faculty for different programmes.

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

Regular seminars are held to ensure students participation and improvement, Introduction of Dissertation/Project work in PG/M.Phil. programmes, Induction of Pre-, Mid-, and Final Ph.D. Seminars to evaluate research progress, Consistent Research Activities with research publications, Participation in national and International Conference/ Seminars and workshop.

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

• Students and faculties are motivated to attend National and International conference/seminars/congress and workshops.

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

- Academic Excursions
- Local field visit
- Visit to different labs: Indian Forest Productivity (IFP), Lalgutua Indian Institute of Resin and Gums (IIRG), Namkum Central Tasar Reaserch and Training Institute (CTRTI), Nagari
- Social and Cultural activities
- Plantation Programme
- Tutorial classes are the part and parcel of the curriculum, so that interaction may be done at personal level which is very helpful in overcoming hesitations and consequently teaching-learning process is improved.
- Celebration of World/National Days:
- 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.

- No

 Ethnobotanical and Taxonomical Survey of Jharkhand state through Projects and Ph.D. programmes

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

| Title | Description | |
|------------|--|--|
| Challenges | To develop PG department (Botany) through SAP (Special Assistant Program) to CAS (Centre of advance Studies) | |

| Opportunities | Department being situated in such a state which is rich on account of Natural Resources in general and plant biodiversity in particular. Moreover, the belt is very rich in ethnic diversity. Therefore we have plenty of opportunities for academic and research activities which will help to educate poor local people and also to help them in exploring the potential plant wealth for employment and revenue generation | |
|---------------|---|--|
| Strengths | Qualified faculties, Quality teaching with multimedia, Quality research activities, timely completion of courses | |
| Weaknesses | Posts of faculty are vacant, Posts of non-teaching staff are also vacant | |

52. Future plans of the department.

- To open more vocational courses under the banner of the department to ensure specialized education to local people who cannot afford to go outstation and meet expenditure.
- To carry more advance studies on Cancer.
- To organize regular training programmes for local people related to Mushrooms, Cultivation of medicinal plants for self employment and revenue generation.
- To organize workshop for students/ researchers and teachers in specialized areas, like Molecular biology, biotechnology and Environmental Biology etc.
- To organize National and International Seminars
- To open more vocational courses under the banner of the Department to ensure specialized education to local students who cannot afford to go outstation due to financial constraints.