


Title	Dr.	First Name	Rashmi	Last Name	Kumari	Photograph
Designation	Assistant Professor					
Address	Department of Zoology, College of Commerce, Arts & Science, Patliputra University, Patna-800020					
Date of Birth	02/12/1989					
Date of Joining	28/11/2019					
Phone No./Mobile	+91-9971877782					
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Educational Qualifications						
Degree	Institution				Year	
Matriculation	BRDAV Public School, Begusarai, Bihar				2005	
Intermediate	Air Force Bal Bharati School, Lodhi Road, Delhi				2005-2007	
UG	Kirori Mal College, University of Delhi				2008-2011	
PG	Kirori Mal College, University of Delhi				2011-2013	
Ph.D	University of Delhi, Delhi				2013-2017	
Career Profile						
<p>I started my teaching career as an Assistant Professor (ad-hoc) in Zoology at Shivaji College, University of Delhi, in January 2017. Then, I was appointed as an Assistant Professor (ad-hoc) in Zoology at Daulat Ram College, University of Delhi in July, 2017 followed by Institute of Home Economics, University of Delhi in January, 2018 and then to Deen Dayal Upadhyaya College, University of Delhi from July, 2018 to November, 2019. Currently, I am working as Assistant Professor in Department of Zoology at College of Commerce, Arts & Science, Patliputra University, Patna, Bihar</p>						
Areas of Interest / Specialization						
<ul style="list-style-type: none"> ▪ Molecular Biology; Microbial Genomics; Bacterial Taxonomy ▪ My primary research interest lies in the area of microbial ecology. I have expertise in both wet lab experiments as well as bioinformatics analysis of genomes. During Ph.D., my experimental work was mainly focused on the development of rifamycin analogs by genetically manipulating the actinobacterium <i>Amycolatopsis mediterranei</i> S699. On computational biology front, I worked on comparative genomic analysis of <i>Amycolatopsis</i> and <i>Tessaracoccus</i> spp. In my Ph.D., I worked in the field of environmental microbiology. My thesis work was focused in the area of comparative genomics, bacterial taxonomy and genetic manipulation of <i>Amycolatopsis mediterranei</i> for production of rifamycin analogs. 						
Publications Profile						
<p>A. <u>Research Publications</u></p> <ol style="list-style-type: none"> 1. Saxena, A., Nayyar, N., Sangwan, N., Kumari, R., Khurana, J. P., and Lal, R. 2013. Genome Sequence of <i>Novosphingobium lindaniclasticum</i> LE124^T, isolated from a hexachlorocyclohexane 						

- (HCH) dumpsite. *Genome Announc.* **1**: e00715-13.
2. Nigam, A., Almabruk, K. H., Saxena, A., Jongtae, Y., Mukherjee, U., Kaur, H., Kohli, P., **Kumari, R.**, Singh, P., Zakharov, L. N., Singh, Y., Mahmud, T. and Lal, R. 2014. Modification of rifamycin polyketide backbone in *Amycolatopsis mediterranei* leads to the production of a new rifamycin B analog with an improved drug activity against rifampicin-resistant *Mycobacterium tuberculosis* strains. *J. Biol. Chem.* **289**: 21142-21152.
 3. *Saxena, A., ***Kumari, R.**, Mukherjee, U., Singh, P. and **Lal, R.** 2014. Draft genome sequence of rifamycin producer *Amycolatopsis rifamycinica* 46095. *Genome Announc.* **2**: e00662-14.
 4. Mukherjee, U., Saxena, A., **Kumari, R.**, Singh, P. and Lal, R. 2014. Draft genome sequence of *Amycolatopsis mediterranei* DSM 40773, a tangible antibiotic producer. *Genome Announc.* **2**: e00752-14.
 5. Singh, P., **Kumari, R.**, Mukherjee, U., Saxena, A., Sood, U. and Lal, R. 2014. Draft genome sequence of rifamycin derivatives producing *Amycolatopsis mediterranei* DSM 46096/ S955. *Genome Announc.* **2**: e00837-14.
 6. Saxena, A., Mukherjee, U., **Kumari, R.**, Singh, P. and Lal R. 2014. Synthetic biology in action: Developing a drug against MDR-TB. *Indian J. Microbiol.* **54**: 369-375.
 7. ***Kumari, R.**, *Singh, P., Schumann, P. and Lal, R. 2016. *Tessaracoccus flavus* sp. nov., isolated from drainage system of a lindane producing factory. *Int. J. Syst. Evol. Microbiol.* **66**: 1862-1868.
 8. **Kumari, R.**, Singh, P. and Lal, R. 2016. Genetics and genomics of the genus *Amycolatopsis*. *Indian J. Microbiol.* **56**: 233-246.
 9. *Singh, P., ***Kumari, R.**, Nayyar, N., Lal, R. 2017. *Pontibacter aurantiacus* sp. nov. isolated from hexachlorocyclohexane (HCH) contaminated soil. *Int J Syst Evol Microbiol.* **17**: 67: 1400-1414.
 10. *Mahato, N., *Gupta, V., *Singh, P., ***Kumari, R.**, Verma, H. *et al.* 2017. Microbial taxonomy in the era of OMICS: application of DNA sequences, computational tools and techniques. *Antonie van Leeuwenhoek* **110**: 1357-1371.
 11. Singh, P., **Kumari, R.** and Lal, R. 2017. Bedaquiline: Fallible hope against drug resistant tuberculosis. *Ind. J. Microbiol.* **57**:371-377.
 12. Kumar, R., Verma, H., Singhvi, N., Sood, U., Gupta, V., Singh, M., **Kumari, R.**, Hira, P., Nagar, S., Talwar, C., Nayyar, N., Anand, S., Rawat, CD., Verma, M., Negi, RK., Singh, Y. and Lal, R. 2020. Comparative genomic analysis of rapidly evolving SARS CoV-2 viruses reveal mosaic pattern of phylogeographical distribution. *mSystems.* **5**:e00505-20.

(*Equal Contributors)

B. Chapter In Book

1. **Kumari, R.** Restriction Digestion in book *An Introduction to Biotechnology: A Genetic Manipulation Perspective*, I.K. International Publishing House Pvt. Ltd., New Delhi, 207 pp, 2016.

International Conferences/ Conferences/ Workshops/ Training Programs Organized

1. **2019**: Organized a one day **Biar Initiative: A School Outreach Program for Enrichment (BIOSCOPE I)**, 2019 under University of Delhi-Indian National Science Academy (INSA) outreach program, “दीकारम” Student Induction Program (UGC), International Union of Microbiological Societies (IUMS), Association of Microbiologists of India (AMI), Indian Network for Soil Contamination Research (INSCR) Science Foundation & DBT Star College Project, Deen Dayal Upadhyaya College, Ramjas College & Acharya Narendra Dev College, University of Delhi at Govt. Senior Secondary School, Biar, Himachal Pradesh held on 21st October, 2019.
2. **2019**: Organized a one day **Bani School Innovation Camp-IV (BaSIC-IV), 2019 (Dream School)**

under University of Delhi-Indian National Science Academy (INSA) outreach program, “दीकारम” Student Induction Program (UGC), International Union of Microbiological Societies (IUMS), Association of Microbiologists of India (AMI), Indian Network for Soil Contamination Research (INSCR) Science Foundation & DBT Star College Project, Deen Dayal Upadhyaya College, Ramjas College & Acharya Narendra Dev College, University of Delhi at GSSS Bani School, Bani, Himachal Pradesh held on 22nd October, 2019.

3. **2019:** Organised a two week **National Summer Training-cum-Workshop on “Fundamentals of Microbiology (BASIC)”** held at Department of Zoology, Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Scheme from June 27th to July 12th 2019. • Organised a two day Annual Fest and Alumni Meet of Department of Zoology held at Deen Dayal Upadhyaya College, University of Delhi from 12th to 13th April, 2019.
4. **2018:** Resource Person in the **Four Day Outreach Program for Class X Students of Kendriya Vidyalaya, Sector-12, Dwarka** jointly organised by NASI-Delhi Chapter and Science Foundation, Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Program from 24th to 29th October, 2018.
5. **2018:** Resource Person in **Five days Hands-on Workshop on “Basic Principles of Recombinant DNA Technology & Metagenomics”** organised by Department of Zoology, Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Scheme from August 28th to 1st September, 2018.
6. **2018:** Organized a one day Bani School **Innovation Camp-III (BaSIC-III)**, 2018 under University of Delhi-Indian National Science Academy (INSA) outreach program & DBT Star College Project, Deen Dayal Upadhyaya College & Ramjas College, University of Delhi at GSSS Bani School, Bani, Himachal Pradesh held on 14th to 15th April, 2018.
7. **2017:** Organized **INSCR International Conference 2017 (IIC-2017) on “Role of Microbe-Plant-Animal Interactions in Human Health”** under the aegis of Department of Zoology University of Delhi, Indian Network for Soil Contamination Research (INSCR) and Amity University, Noida at Department of Zoology, University of Delhi from 26th to 28th September, 2017.
8. **2017:** Organized **Pre-conference workshop on “Hands on to Computational Biology for (Meta)Genomic analysis”** under the aegis of International Society for Microbial Ecology (ISME), Department of Zoology University of Delhi and Indian Network for Soil Contamination Research (INSCR) at Department of Zoology University of Delhi at September 26th, 2017.
9. **2016:** Organized a two day **“Bani School Innovation Camp (BaSIC)”**, 2016 under University of Delhi Indian National Science Academy (INSA) outreach program & DBT Star College Project, Ramjas College at GSSS Bani School, Bani, Himachal Pradesh from 23rd to 24th December, 2016.
10. **2016:** Organized **National Workshop on “Microbial Genomics and Metagenomics”** at Department of Zoology, University of Delhi under the aegis of IUMS-INSA (International Union of Microbiological Societies-Indian National Science Academy), AMI Delhi Unit, University of Delhi and INSCR (Indian Network for Soil Contamination Research) on September 22nd, 2016.
11. **2015:** Organized National workshop on **“Renovating Bacterial Taxonomy with Bioinformatics”** at Department of Zoology, University of Delhi in collaboration with National Bureau of Agriculturally Important Microorganisms (NBAIM), Mau, Uttar Pradesh (May 14th – May 15th, 2015).

Presentations

International

1. **Kumari, R.,** Kumar, R., Singh, P., Mukherjee, U., Sood, U., Hira, P., and **Lal, R** “Comparative genomic analysis of genus *Amycolatopsis*: Revealing their phylogeny, functional attributes and potential to produce variety of secondary metabolites”. Poster presented in the World Congress and Expo on Applied Microbiology, held at Frankfurt, Germany from August 18-20, 2015.

2. Singh, P., **Kumari, R.**, Mukherjee, U., Hira, P., Sood, U., and **Lal, R.** “Genetic manipulation of rifamycin polyketide biosynthetic gene cluster of *Amycolatopsis mediterranei* S699 for production of Rifamycin B analogs”. Poster presented in the World Congress and Expo on Applied Microbiology, held at Frankfurt, Germany from August 18-20, 2015.

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1. **Kumari, R.**, Singh, P., Talwar, C., Negi, R.K. and **Lal, R.** “Comparative Genomic Analysis of genus *Tessaracoccus*: Revealing their niche specific adaptations”. Poster presented in the 57th Annual Conference of Association of Microbiologists of India (AMI) held at Gauhati University, Guwahati, India from November 24-27, 2016.
2. Singh, P., **Kumari, R.** and Lal, R. "Genetic Manipulation of the acyl transferase domain of Rifamycin Polyketide Synthase gene cluster for producing rifamycin B analog in *Amycolatopsis mediterranei* S699". Poster presented in the 57th Annual Conference of Association of Microbiologists of India (AMI) held at Gauhati University, Guwahati, India from November 24- 27, 2016.
3. Singhvi, N., Puri, A., **Kumari, R.**, Singh, P., Sood, U., Hira, P., Saran, S., Saxena, R. K., and Lal, R. “Production of 24-desmethylrifamycin B from *Amycolatopsis mediterranei* mutant strain using fermentation”. Poster presented in the 56th Annual Conference of Association of Microbiologists of India (AMI) held at Jawaharlal Nehru University, Delhi, India from December 7-10, 2015.
4. Singh, P., **Kumari, R.**, Saxena, A., Hira, P., Sood, U., and **Lal, R.** “Genetic Manipulation of the Rifamycin B Polyketide Synthase gene cluster in *Amycolatopsis mediterranei* S699”. Poster presented in the 56th Annual Conference of Association of Microbiologists of India (AMI) held at Jawaharlal Nehru University, Delhi, India from December 7-10, 2015.
5. **Kumari, R.**, Singh, P., Kumar, R., Sood, U., Hira, P., and **Lal, R.** “Comparative Genomic Analysis of genus *Amycolatopsis*: Revealing their Phylogeny, Functional Attributes and Potential to Produce Variety of Secondary Metabolites”. Poster presented in the 56th Annual Conference of Association of Microbiologists of India (AMI) held at Jawaharlal Nehru University, Delhi, India from December 7-10, 2015.
6. Sood, U., Singh, P., **Kumari, R.**, Mukherjee, U., Saxena, A., Shakarad, M., and **Lal, R.** “Draft Genome Sequence of *Amycolatopsis mediterranei* DSM 46096, producer of Rifamycin derivatives”. Poster presented in the 55th Annual Conference of Association of Microbiologists of India (AMI) held at Tamil Nadu Agricultural University, Coimbatore, India from November 12-14, 2014.
7. **Kumari, R.**, Saxena, A., Mukherjee, U., Singh, P., and **Lal, R.** “Draft genome sequence rifamycin producer *Amycolatopsis rifamycinica* 46095 and an insight into the polyketide biosynthesis gene cluster”. Poster presented in the 55th Annual Conference of Association of Microbiologists of India (AMI) held at Tamil Nadu Agricultural University, Coimbatore, India from November 12-14, 2014.
8. Singh, P., Saxena, A., **Kumari, R.**, Mukherjee, U., and **Lal, R.** “Genetic manipulation of the polyketide backbone of Rifamycin B in *Amycolatopsis mediterranei* S699 by combinatorial biosynthesis”. Poster presented in the 55th Annual Conference of Association of Microbiologists of India (AMI) held at Tamil Nadu Agricultural University, Coimbatore, India from November 12-14, 2014.
9. Mukherjee, U., Saxena, A., Nigam, A., **Kumari, R.**, Singh, P., Mahmud, T., and **Lal, R.** “Modification of rifamycin polyketide backbone leads to improved drug activity against rifampicin-resistant *Mycobacterium tuberculosis*”. Poster presented in the 55th Annual Conference of Association of Microbiologists of India (AMI) held at Tamil Nadu Agricultural University, Coimbatore, India from November 12-14, 2014.
10. **Kumari, R.**, Saxena, A., Nayyar, N., Sangwan, N., Khurana, J. P., and **Lal, R.** “Genome sequence of *Novosphingobium lindaniclasticum* LE124^T, a bacterium isolated from a Hexachlorocyclohexane dumpsite”. Poster presented in the 54th Annual Conference of Association of Microbiologists of India (AMI) held at MDU, Rohtak, Haryana, India from November 17-20, 2013.

11. Mukherjee, U., Saxena, A., Almabruk, K., Kohli, P., **Kumari, R.**, Singh, P., Mahmud, T., and **Lal, R.** “Combinatorial biosynthetic approach for the production of novel rifamycin analogs”. Poster presented in the 54th Annual Conference of Association of Microbiologists of India (AMI) held at MDU, Rohtak, Haryana, India from November 17-20, 2013.

Awards and Distinctions

1. Awarded “**Medha Puraskar**” for obtaining above 80% marks in 10th standard (2005).
2. Awarded “**Best All Round Student Award**” in school for the academic session 2006-07.
3. **College Topper** of B.Sc. (H) Zoology – 2008-09, 2009-10, 2010-11.
4. **Delhi University 2nd Rank Holder** in B.Sc. (H) Zoology (2008-11).
5. Awarded “**Sh. Jai Dev Memorial Award**” for obtaining 1st position in college in B.Sc. (H) Zoology (2008-11).
6. Received “**UGC Post Graduate Scholarship**” for University rank holders (2011-2013) [File No. F1-17.1/2011/URH-2011-1183/(SA-III)].
7. **College Topper** of M.Sc. Zoology – 2011-12, 2012-13.
8. **Delhi University 2nd Rank Holder** in M.Sc. Zoology (2011-13).
9. Qualified **Junior Research Fellowship (JRF)** for Life Science conducted by CSIR-UGC, Center for Scientific and Industrial Research, United Grant Commission, Govt. of India in December 2012 (Rank-75).
10. Qualified **National Eligibility Test (NET)** for Life Science conducted by CSIR-UGC, Center for Scientific and Industrial Research, United Grant Commission, Govt. of India in June 2012 (Rank-29).
11. Received **International Travel grant** from University of Delhi for attending the international conference “World Congress and Expo on Applied Microbiology”, held at Frankfurt, Germany from August 18-20, 2015 (File No. IRC/2015/8841).

Conferences/ Workshops/ Seminars/FDPs Attended

1. **2020:** Participated in a two-day Workshop-cum-Seminar “**Marching Frontiers of Biotechnology**” held at College of Commerce, Arts & Science, Patna, India in collaboration with AVP Permaculture & Agriculture Technologies and Amplicon Diagnostics & Research Centre, Patna from 21st to 22nd January, 2020.
2. **2019:** Participated in one day **Workshop on the “Assembly and use of Foldscope**” organized by Department of Zoology, Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Scheme on October 18th, 2019.
3. **2019:** Participated in a two-day “**National Workshop on Intellectual Property Rights**” organized by Department of Botany and Zoology, Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Scheme from 22nd to 23rd August, 2019.
4. **2019:** Successfully qualified the Faculty Development Program on “**MOOCs and e-content Development**” jointly organized by SWAYAM, an initiative of MHRD and Consortium for Educational Communication (CEC), the national Coordinator of UGC for non-technology UG and PG courses held from 13th to 17th July, 2019.
5. **2019:** Participated in “**Training Workshop on Drosophila and Zebrafish Model Systems**” organized by Department of Zoology and Biochemistry, Daulat Ram College, University of Delhi under IQAC in collaboration with Sansriti Foundation from 28th to 31st May, 2019.
6. **2017:** Attended the **INSCR International Conference 2017 (IIC-2017) on “Role of Microbe-Plant Animal Interactions in Human Health**” under the aegis of Department of Zoology University of Delhi, Indian Network for Soil Contamination Research (INSCR) and Amity University, Noida at Department of Zoology, University of Delhi from 26th -28th September, 2017.
7. **2016:** Attended the 57th Annual Conference of Association of Microbiologists of India (AMI) &

International Symposium on “**Microbes and Biosphere: What’s New What’s Next**” held at The Institute of Advanced Study in Science and Technology (IASST), Guwahati, India from 24th -27th November, 2016.

8. **2015:** Attended the 56th Annual Conference of Association of Microbiologists of India (AMI) & International Symposium on “**Emerging Discoveries in Microbiology**” held at School of Life Sciences, Jawaharlal Nehru University, Delhi, India from 7th-10th December, 2015.
9. **2014:** Attended the 55th Annual Conference of Association of Microbiologists of India (AMI) & National Conference of “**Empowering Mankind with Microbial Technologies (AMIEMMT-2014)**” held at Tamil Nadu Agricultural University, Coimbatore, India from November 12th-14th, 2014.
10. **2013:** Attended the 54th Annual Conference of Association of Microbiologists of India (AMI), International Symposium on “**Frontier Discoveries in Microbiology and its Interdisciplinary Relevance (FDMIR-2013)**” held at MDU, Rohtak, Haryana, India from 17th-20th November, 2013.

Online Webinars/ Conferences/ FDP/ Induction/ Refresher Programmes

1. Participated in the **webinar “Reproductive Health in the New Age: Challenges of the Modern World”** organized by Department of Zoology, Sri Venkateswara College, University of Delhi on June 26, 2021.
2. Participated in Annual International Conference “**Microbial World: Recent Developments in health, Agriculture and Environmental Sciences**” organized by The Association of Microbiologists of India and Indian Network for Soil, Contamination and Research (INSCR), in association with The Energy and Resources Institute (TERI), Department of Zoology, University of Delhi, Indian Agricultural Research Institute (IARI) & Indian National Science Academy (INSA) from February 3-5, 2021.
3. Participated in International Conference (Science & Society Session) “**Reaching out to Children & Society: A step towards promoting Microbiology Literacy**” organized by The Association of Microbiologists of India and Indian Network for Soil, Contamination and Research (INSCR), in association with The Energy and Resources Institute (TERI), Department of Zoology, University of Delhi, Indian Agricultural Research Institute (IARI) & Indian National Science Academy (INSA) on February 3, 2021.
4. Successfully completed Four Week Induction/Orientation Programme for “**Faculty in Universities/ Colleges/ Institute of Higher Education**” organized by Teaching Learning Centre, Ramanujan College, university of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching from February 11- March 13, 2021 and obtained grade A⁺.
5. Successfully completed Two Week Online Interdisciplinary Refresher Course on “**Blended Learning and Flipped Classroom**” organized by Teaching Learning Centre, Ramanujan College, university of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching in collaboration with GNIOT from March 8-22, 2021 and obtained grade A⁺.
6. Participated in International webinar on “**Contemporary Issues in Biosciences**” organized by Department of Botany & IQAC, College of Commerce, Arts & Science, Patna on August 14, 2020.
7. Participated in UGC-CPE Sponsored Online Interdisciplinary International Conference on “**Covid-19 Pandemic and its Impact on the Human Society: Divergent Voices and Perspectives**” organized by Department of English & Political Science, Nirmala College, Ranchi on July 19-21, 2020.
8. Participated in International e-conference on “**Health and Research in Current Scenario: with special emphasis on COVID-19 virus Genomics and Pathogenicity**” jointly organized by Sri Venkateswara College, University of Delhi & Phixgen Pvt. Ltd., India on July 17, 2020.
9. Participated in National webinar on “**Conservation of Threatened Species of Bihar**” organized by Department of Zoology & IQAC, Sri Govind Singh College, Patna on July 11, 2020.
10. Participated in National webinar on “**Covid 19 and its impact on Indian Economy**” organized by Department of Economics & IQAC, Sri Govind Singh College, Patna on July 4, 2020.

11. Participated in National webinar on **“Online Education: Opportunities and Challenges in India”** organized by IQAC, MD College, Naubatpur, Patna on June 29, 2020.
12. Participated in the webinar on **“Rebooting Indian Economy: A Socio-Economic and Scientific Response to Foster Recovery Post Covid-19”** organized by the Department of Economics & IQAC, Jagat Narain Lal College, Khagaul, Patna on June 28-29, 2020.
13. Participated in one day national webinar on **“Discovery and Development of Drugs in India with a Special Reference to Umifenovir”** organized by Department of Chemistry in association with Research & Innovation Cell & IQAC, ANS College, Barh on July 2, 2020.
14. Participated in IQAC Lockdown Lecture Series 3 on the topic **“Covid 19 and its impact on Indian Economy”** organized by Department of Economics, College of Commerce, Arts & Science, Patna in collaboration with IEA and EAB on June 12, 2020.
15. Participated in webinar on **“Healthy Bones.... Need of the Hour”** organized by Department of Zoology, College of Commerce, Arts & Science, Patna on July 2, 2020.
16. Participated in one day International webinar on **“Coping with Higher Education, Research and Employability During and After the pandemic”** organized by IQAC, A. N. S. College, Barh in collaboration with Otermans Institute, London on June 28, 2020.
17. Participated in the webinar on **“Challenges of Adjustment during and after COVID-19”** organized by NSS of College of Commerce, Arts & Science, Patna on June 18, 2020.
18. Participated in international e-conference on **“Advanced and Innovative Materials for Sustainable Future-2020”** organized by Ram Ratan Singh College, Mokama, Patna on June 22-23, 2020.
19. Completed 7 day online Faculty Development Programme on **“LibreOffice Impress”** organized by IQAC, College of Commerce, Arts & Science, Patna in association with Remote Learning through spoken tutorial, IIT Mumbai from June 15-21, 2020.
20. Attended webinar on **“Creative Leadership in Crisis Time: Turning Crisis into Learning”** organized by Department of Zoology, College of Commerce, Arts & Science, Patliputra University on June 17, 2020.S
21. Attended webinar on **“Natural Resource Management in India Post Covid-19 Scenario”** organized by Department of Zoology, College of Commerce, Arts & Science, Patliputra University on August 6, 2020.
22. Attended the online workshop entitled **“Role of citizen in Biodiversity Conservation”** organized by Deshbandhu College, University of Delhi on May 13, 2020.
23. Completed an online course **“How to Become an Online Teacher”** on April 12, 2020 conducted by Amity University.
24. Taken **“Stay at Home, Save Lives Pledge and committed himself/herself to abide by the 21 days lockdown rules”** on March 23, 2020 issued by Ministry of Electronics and Information Technology.
25. Completed an online course **“COVID-19: Operational Planning Guidelines and COVID-19 Partners Platform to Support Country Preparedness and Response”** on March 26, 2020 conducted by World Health Organization (WHO).