



List of Programme(s)

Department: Zoology

List of Programmes having Components of field

Sr. No.	Programme Code	Programme Name	Academic Year
01.	310	M.Sc.	2020-21

A. V. K. Bhargava

PROFESSOR
HEAD
Department of Zoology
Guru Ghasidas Vishwavidyalaya, Bilaspur



Minutes of Meetings (MoM) of Board of Studies (BoS)

School : **School of Studies of Life Sciences**

Department : **Zoology**

Date and Time : **Aug 18, 2020 - 11:30 AM**

Venue : **Meeting room, Department of Zoology**

The scheduled meeting of member of Board of Studies (BoS) of Department of Zoology, School of Studies of Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur was held to design and discuss the M. Sc. Zoology (I to IV sem) scheme and syllabi.

The following members were present in the meeting:

1. Prof. Shivkant Kumar Prasad (External Expert Member BoS, Dept. of Biosciences, Pandit Ravishankar Shukla University).
3. Prof. LVKS Bhaskar (HOD, Dept. of Zoology.-cum Chairman, BOS)
4. Dr. Rohit Seth (Member BoS, Associate Professor, Dept. of Zoology)
5. Dr. Sushant Kumar Verma (Member, Assistant Professor, Dept. of Zoology)

The committee discussed and approved the scheme and syllabi. The following courses were revised in M. Sc. Zoology (I to II Semesters):

Sr. No. Course Code Name of the Course

- | | | |
|-----|---------|--|
| 01. | LZT 102 | Cell Biology |
| 02. | LZT 103 | Reproduction and Developmental Biology |
| 03. | LZT 201 | Biochemistry and Molecular Biology |
| 03. | LZT 204 | Biotechniques |

Project/dissertation M.Sc. IV semester

The project work will be carried out by M.Sc. IV semester students in the field of respective elective papers opted by the students. Each student may study any one out of the given electives (DSE: A/B/C/D/E/F).

DR. LVKS BHASKAR
HEAD
Department of Zoology
Guru Ghasidas Vishwavidyalaya, Bilaspur

Signature & Seal of HoD



Scheme and Syllabus

For

M. Sc. Zoology

Applicable from Session 2020-2021 to onwards

Department of Zoology

School of Life Sciences

Guru Ghasidas Vishwavidyalaya, Bilaspur (CG)



Scheme

Semester-wise Theory Papers/ Practical: Masters of Science in Zoology

Department of Zoology, School of Life Science

Type of Course	Course Code	Title of the Course	Lecture- Tutorial- Practical / week	No. of credits	Continuous Compreh- ensive Assessment (CCA)	End- Semester Exam. (ESE)	Total
Semester - Ist							
Core Course 1	LZT 101	Comparative Anatomy of Vertebrates	4	4	40	60	100
Core Course 2	LZT 102	Cell Biology	4	4	40	60	100
Core Course 3	LZT 103	Reproduction and Developmental Biology	4	4	40	60	100
Core Course 4	LZT 104	Basic Mammalian Physiology	4	4	40	60	100
Core Course Practical 1	LZL 105	Lab. Exercises based on courses LZT 101 and 102	6	3	40	60	100
Core Course Practical 2	LZL 106	Lab. Exercises based on courses LZT 103 and 104	6	3	40	60	100
				22	240	360	600
Semester IInd							
Core Course 5	LZT 201	Biochemistry and Molecular Biology	4	4	40	60	100
Core Course 6	LZT 202	Regulatory Mammalian Physiology	4	4	40	60	100
Core Course 7	LZT 203	Endocrinology	4	4	40	60	100
Core Course 8	LZT 204	Biotechniques	4	4	40	60	100
Core Course Practical 3	LZL 205	Lab. Exercises based on course LZT 201 and 202	6	3	40	60	100
Core Course Practical 4	LZL 206	Lab. Exercises based on course LZT 203 and 204	6	3	40	60	100
				22	240	360	600
Semester IIIrd							
Core Course 9	LZT 301	Molecular Genetics	4	4	40	60	100
Core Course 10	LZT 302	Animal Behavior	4	4	40	60	100

S. Khanna

J.F. Khanna

Prakash

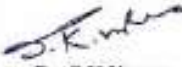


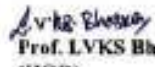
<i>Biology</i>							
DSE: A <i>Biochemistry and Molecular Biology</i>	LZT 404A	Medical Biochemistry	4	4	40	60	100
DSE: B <i>Mammalian Reproductive Physiology and Endocrinology</i>	LZT 403B	Hormone Receptors and Signaling Mechanism	4	4	40	60	100
DSE: B <i>Mammalian Reproductive Physiology and Endocrinology</i>	LZT 404B	Fertility and Sterility	4	4	40	60	100
DSE: C <i>Fish Biology</i>	LZT 403C	Fish Reproduction, Genetics and Biotechnology	4	4	40	60	100
DSE: C <i>Fish Biology</i>	LZT 404C	Capture Fishery	4	4	40	60	100
DSE: D <i>Neuroscience</i>	LZT 403D	Cellular Neurophysiology and Neurochemistry	4	4	40	60	100
DSE: D <i>Neuroscience</i>	LZT 404D	Sensory, Motor and Regulatory Systems	4	4	40	60	100
DSE: E <i>Toxicology</i>	LZT 403E	Mechanism of Toxicity	4	4	40	60	100
DSE: E <i>Toxicology</i>	LZT 403E	Systemic Toxicity	4	4	40	60	100
DSE: F <i>Epidemiology and Molecular Genetics</i>	LZT 403F	Molecular Markers and Genome Analysis	4	4	40	60	100
DSE: F <i>Epidemiology and Molecular Genetics</i>	LZT 404F	Prenatal Diagnosis and Pre-Implantation Genetics	4	4	40	60	100
DSE Dissertation	LZL 405	Project work / Dissertation	12	6	80	120	200
				22	240	360	600

1. Discipline Specific Electives (DSE) for each session will be offered to students on the basis of availability of faculty and infrastructure.
2. Offering of DSE in any particular session will be decided after a formal meeting of faculty members of Department of Zoology.
3. Each student may elect any one out of the given electives (A, B, C, D, E and F).
4. Elective papers will be distributed among the students on the basis of merit/choice. The project work/dissertation will be carried out only in the field of respective elective papers (A, B, C, D, E and F) opted by the students.


Prof. S K Prasad
(External Expert)


Dr. Rohit Seth
(Member)


Dr. S K Verma
(Member)


Prof. LVKS Bhaskar
(HOD)



Students Undertaking Field Projects / Research Projects / Internships

Department : Zoology

Programme Name : PG

Academic Year : 2020-21

List of students undertaking Field Projects/Projects / Internships

Sr. No.	Name of the Student	Title of the Project / Internship along with the Name of the Organization (where Project / Internship was carried out)	Link of Certificate
1.	Abhishek Kumar Patel	Pediatric Brain Tumors	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022010323_Abhishek%20Kumar%20Patel-Dissertation%202020-21,%20certificate.pdf
2.	Aditi Verma	Antipsychotics induced metabolic syndrome in bipolar disorder patients: A review	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022011322_Aditi%20Verma-Dissertation%202020-21,%20certificate.pdf
3.	Akash Kumar Bharti	Ethnomedicinal, phytochemical and pharmacological information on Indigofera tinctoria Linn	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022011919_Akash%20Kumar%20Bharti-Dissertation%202020-21,%20certificate.pdf
4.	Ananya Mahapatra	Advances In the Molecular Etiology of Severe Combined Immunodeficiency and	https://www.ggu.ac.in/Admin/Files/



		Its Screening Methodology	DepartmentDocument/07272022012531_Ananya%20Mahapatra-Dissertation%202020-21,%20certificate.pdf
5.	Anjali Koram	Ethnomedicinal use and pharmacological properties of <i>Oxalis griffithii</i> Edgew.: A systematic review	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022012807_Anjali%20Koram-Dissertation%202020-21,%20certificate.pdf
6.	Anjali Singh Markam	Ethnomedicinal uses and pharmacological properties of <i>Phyllanthus amarus</i> Schum and Thonn.”	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022013007_Anjali%20Singh%20Markam-Dissertation%202020-21,%20certificate.pdf
7.	Anwasha Sahu	Therapeutic Management of Hepatic Encephalopathy by ammonia-lowering strategy and use of antioxidants and other drugs	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022013156_Anwasha%20Sahu-Dissertation%202020-21,%20certificate.pdf
8.	Ashish Kumar Sahu	Therapeutic Role of curcumin in treatment of Alzheimer’s disease	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022013507_Ashish%20



			Kumar%20Sahu-Dissertation%202020-21,%20certificate.pdf
9.	Ashutosh Naik	Food value and a few pharmacological properties of Vigna trilobata Linn: A systemic review	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022013856_Ashutosh%20Naik-Dissertation%202020-21,%20certificate.pdf
10.	Bhoomika Sahu	Role of NMDA Receptor and GABA Receptor in Hepatic Encephalopathy	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022014026_Bhoomika%20Sahu-Dissertation%202020-21,%20certificate.pdf
11.	Bikram Keshari Das	Influenza Virus associated Acute Necrotizing Encephalopathy and COVID – 19 Encephalopathy: A Comparative Review”	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022014331_Bikram%20Keshari%20Das-Dissertation%202020-21,%20certificate.pdf
12.	Chanchal Bhaskar	Genotoxic Effects of Pesticides in Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022044627_Chanchal%20Bhaskar-Dissertation%20certificate-2020-



			21.pdf
13.	Chanchal Devnani	Suppressive Effect of Gonadal Steroid on Cell Mediated Immunity	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022015210_Chanchal%20Devnani-Dissertation%20certificate%202020-21.pdf
14.	Darwin Dahire	Literature Survey Based Predictions on Occupational Health Hazards in Education Institutions	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022015345_Darwin%20Dahire-Dissertation%202020-21,%20certificate.pdf
15.	Deepak Kumar Sindram	Scientific information on Exacum tetragonum Roxb. for medicinal use in future”	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022015649_Deepak%20Kumar%20Sindram-Dissertation%202020-21,%20certificate.pdf
16.	Falguni Saraf	Wernicke's encephalopathy: A Review Article	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022020044_Falguni%20Saraf-Dissertation%202020-21,%20certificate.pdf



17.	Fulesh Chaturvedi	Solanum virginium L: Plant description and medicinal uses	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022020309_Fulesh%20Chaturvedi-Dissertation%2020-21,%20certificate.pdf
18.	Ghanendra Banjare	Scientific description and potential medicinal uses of Cassia tora L: An inference from literature survey.	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022020503_Ghanendra%20Banjare-Dissertation%2020-21,%20certificate.pdf
19.	Hemlata	Literature survey based on pharmacological compendium on Tridax procumbens Linn	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022021045_Hemlata-Dissertation%2020-21,%20certificate.pdf
20.	Isha Sahu	Schizophrenia - Cause and Treatment	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022021614_Isha%20Sahu-Dissertation%2020-21,%20certificate.pdf
21.	Kiran Prasad	Anthracycline and Trastuzumab Induced Cardiotoxicity in Breast Cancer: A Major Challenge for Advance Chemotherapy	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/0727202202



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22.	Lipina Sahu	Vitamin D deficiency: A major Player to cause of Obesity	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/0727202202030_Lipina%20Sahu-Dissertation%202020-21,%20certificate.pdf
23.	Loknath	A review on pharmacological properties of curcumin	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/0727202202241_Loknath-Dissertation%202020-21,%20certificate.pdf
24.	Prema Patel	Effect of Ammonia Toxicity in Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022023622_Prema%20Patel-Dissertation%202020-21,%20certificate.pdf
25.	Shabnam Xalxo	Toxic Effects of Agriculture Pesticides' in Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022023753_Shabnam%20Xalxo-Dissertation%202020-21,%20certificate.pdf



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26.	Mitali Behara	Mechanism of SARS-CoV-2 infection with special reference to smoking and a brief awareness survey	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022023937_Miss%20Mitali%20Behara-Dissertation%202020-21,%20certificate.pdf
27.	Mohit Kumar Sahu	Potential role of Tryptophan metabolism in the modulation of brain function by the gut microbiota	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022024231_Mohit%20Kumar%20Sahu-Dissertation%202020-21,%20certificate.pdf
28.	Monika Sahu	A Review on Hormone Therapy in Cancer	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022024428_Monika%20Sahu-Dissertation%20certificate%202020-21.pdf
29.	Mr. Anurag Singh	Microplastic Toxicity in various Aspects of Fish Health	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022024754_Anurag%20Singh-Dissertation%202020-21,%20certificate.pdf



30.	Mr. Danteshwar Ade	Toxic Effect of Nitrogenous Fertilizers in Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022025134_Danteshwar%20Ade-Dissertation%202020-21,%20certificate.pdf
31.	Mr. Lalit Kumar	A Review: Magnetic Field Effect on Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022025458_Lalit%20Kumar-Dissertation%202020-21,%20certificate.pdf
32.	Mr. Lilesh Kumar	Role of Exogenous Melatonin in Fish Reproduction	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022025921_Lilesh%20Kumar-Dissertation%202020-21,%20certificate.pdf
33.	Ms. Yagya Trivedi	Literature survey based study on impact of COVID-19 on the human	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022030258_Yagya%20Trivedi-Dissertation%202020-21,%20certificate.pdf
34.	Netramayee Pradhan	Dexamethasone, the world's first life-saving drug against COVID-19: A Review	https://www.ggu.ac.in/Admin/Files/DepartmentDocu



			ment/07272022030501_Netramayee%20Pradhan-Dissertation%202020-21,%20certificate.pdf
35.	Nikita Das	Effects of Pesticides on Fish Behaviour	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022030714_Nikita%20Das-Dissertation%202020-21,%20certificate.pdf
36.	Nikita Meher	Covid-19 Encephalopathy: Could be The Main Cause of Mortality	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022030906_Nikita%20Meher-Dissertation%202020-21,%20certificate.pdf
37.	Nikita Rai	Pharmacological activities and therapeutic description of Cassia alata Linn	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022031037_Nikita%20Rai-Dissertation%202020-21,%20certificate.pdf
38.	Poojarani Panda	Recent updates on Oxidative stress and Cardiovascular Disease: A detailed Review of Potential biomarkers and therapeutics	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022031328_Poojarani%20Panda-



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39.	Prashanti Sahu	Neurological Manifestations of Alcoholism	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022031625_Prashanti%20Sahu-Dissertation%202020-21,%20certificate.pdf
40.	Pratik Mohanty	Post-Acute COVID-19 Syndrome-An Upcoming Challenge for Public Health And Medical Science	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022031852_Pratik%20Mohanty-Dissertation%202020-21,%20certificate.pdf
41.	Priyanka Painkra	Concepts of Food Addiction, Obesity and Role of Oxidative Stress	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022032250_Priyanka%20Painkra-Dissertation%202020-21,%20certificate.pdf
42.	Purandar Choudhary	Morphological, medicinal and pharmacological information on Fumaria parviflora Lam	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022032534_Purandar%20Choudhary-Dissertation%202020-21,%20certificate.pdf



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43.	Rahul Mahapatra	Reproductive Toxicity Caused by Pesticides on Fish	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022033050_Rahul%20Mahapatra-Dissertation%202020-21,%20certificate.pdf
44.	Rakesh Bhainshal	An Overview Of Traumatic Brain Injury & Its Critical Care Management	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022033258_Rakesh%20Bhainshal-Dissertation%202020-21,%20certificate.pdf
45.	Rakesh Kumar Acharya	A Brief Review on Oxidative Stress and the Role Of Antioxidants in Neutralizing the Effect of ROS in Sickle Cell Patients	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022033511_Rakesh%20Kumar%20Acharya-Dissertation%202020-21,%20certificate.pdf
46.	Rashmi Patel	“Effect of Covid-19 on kidney function”	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022033708_Miss%20Rashmi%20Patel-Dissertation%202020-21,%20certificate.pdf



47.	Reema Dhruw	Impact of Excessive and Improper Use of Pesticides on Histopathological Parameters of Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022033858_Reema%20Dhruw-Dissertation%202020-21,%20certificate.pdf
48.	Riki Sahu	Overview of Thyroxine Induced Changes in Immune Response	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022034346_Riki%20Sahu-Dissertation%202020-21,%20certificate.pdf
49.	Sarita Yadav	Effects of Pesticides on Haematological Parameters of Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022034558_Sarita%20Yadav-Dissertation%202020-21,%20certificate.pdf
50.	Satyabrata Pati	Role of growth factors in cancer progression	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022034738_Satyabrata%20Pati-Dissertation%202020-21,%20certificate.pdf
51.	Shubhangee Chouhan	The Overview Of Development Of Covid Vaccines	https://www.ggu.ac.in/Admin/Files/DepartmentDocu



			ment/07272022035019_Shubhangi%20Chouhan-Dissertation%202020-21,%20certificate.pdf
52.	Simran Gahir	Impact of SARS-CoV-2 on Sleep/Wake Cycle and Melatonin	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022035342_Miss%20Simran%20Gahir-Dissertation%202020-21,%20certificate.pdf
53.	Smruti Sikha Kar	Effects of Natural Volatile Oils For Treating Geriatric Depression	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022035645_Smruti%20Sikhikha%20Kar-Dissertation%202020-21,%20certificate.pdf
54.	Soumyamayee Ratha	Age associated immune Suppression, SARS-CoV-2 infection and immunomodulation by melatonin: A Review	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022040317_Miss%20Soumyamayee%20Ratha-Dissertation%202020-21,%20certificate.pdf
55.	Subhalaxmi Sahu	Impact of Covid-19 post lock down on pregnancy with reference to melatonin: A Review	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022040725_Miss%20Su



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56.	Suman Rathore	Antiviral impact of melatonin with reference to influenza virus and Covid-19 infection	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022041317_Miss%20Suman%20Rathore-Dissertation%202020-21,%20certificate.pdf
57.	Sunanda Kuanr	Insulin Receptor Signal Transduction Network in Normal and Insulin Resistance Cells	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022042006_Sunanda%20Kuanr-Dissertation%202020-21,%20certificate.pdf
58.	Suprabha Barik	Genotoxic Effects of Pesticides in Fishes	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022042229_Suprabha%20Barik-Dissertation%202020-21,%20certificate.pdf
59.	Suraj Kumar Mishra	A Review on The Role of Nerve Growth Factor in Management of Cancer	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022042401_Suraj%20Kumar%20Mishra-Dissertation%202020-21,%20certificate.pdf



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60.	Usha Rani	A Study on the Management of Epilepsy in Children	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022042604_Usha%20Rani-Dissertation%202020-21,%20certificate.pdf
61.	Vaishali Naik	Melatonin- Effects on Immune Cells	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022042737_Vaishali%20Naik-Dissertation%202020-21,%20certificate.pdf
62.	Veer Pratap Singh	Recent Advances In The Diagnosis & Treatment Of Alzheimer's Disease	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022043239_Veer%20Pratap%20Singh-Dissertation%202020-21,%20certificate.pdf
63.	Vidisha Sarkar	Oxidative Stress Responses in Fish after Exposure to Pesticides	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022043422_Vidisha%20Sarkar-Dissertation%202020-21,%20certificate.pdf



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64.	Vinisha Sahu	Angiotensin Receptors and Blood Pressure Regulation	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022043545_Vinisha%20Sahu-Dissertation%202020-21,%20certificate.pdf
65.	Yaminee Patel	Effects of electromagnetic fields on brain	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022043709_Yaminee%20Patel-Dissertation%202020-21,%20certificate.pdf
66.	Yogesh Sahu	Protective effect of plant based therapy against neurotoxicity induced by first line anti-tuberculosis drugs	https://www.ggu.ac.in/Admin/Files/DepartmentDocument/07272022043916_Yogesh%20Sahu-Dissertation%202020-21,%20certificate.pdf