



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

(An Autonomous Institution of Ministry of Environment, Forest and Climate Change, Government of India)

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Contractual Engagement of Project Personnel for Biodiversity Conservation and Ganga Rejuvenation under National Mission for Clean Ganga (NMCG)

(Advertisement No. WII/NMCG/2017-1)

PLEASE VISIT SITE WWW.WII.GOV.IN FOR OLINE SUBMISSION OF APPLICATION

The National Mission for Clean Ganga (NMCG) under the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India has initiated a project "Biodiversity Conservation and Ganga Rejuvenation" in collaboration with the Wildlife Institute of India (WII), Dehra Dun. This project aims to prepare a science-based aquatic species restoration plan for Ganga River by involving multiple stakeholders. This project has six components viz. (1) Establishment of Ganga Aqualife Conservation Monitoring Centre at Wildlife Institute of India (WII), Dehra Dun, (2) Planning Aquatic Species Restoration for Ganga River, (3) Capacity Building of Forest Department and Other Stakeholders, (4) Establishment of Aquatic Wildlife Rescue and Rehabilitation Centres, (5) Community Based Conservation Programmes for Species Restoration in Ganga River and, (6) Nature Interpretation and Education for Biodiversity Conservation of Ganga River. These programmes will be implemented for the duration of three years. The WII requires motivated and qualified Indian Citizens, interested in contributing to the restoration of biodiversity values of Ganga River under this project. Annexure 1 and 2 gives details of the positions available.

All engagements are on a contractual basis, initially for one year period from the date of appointment that can be extended depending on the candidate's performance and the programme needs. The work description, essential and desirable qualifications, age and the consolidated monthly emoluments including all allowances for the required position is given in Annexure 1 & 2. The upper age limits as mentioned may be relaxed up to 5 years in case of SC/ST/Women/Physically Challenged and 3 years for OBC candidates. The SC/ST candidates are exempted from paying the application fee.

Recruitment process

(1) Project Field Unit (PFU) - The position of Project Scientists, Project Associates, and Project fellows/ Project Biologists/ Database operator will be recruited through a written test followed by a personal interview. The Project Assistants Grade II will only appear for personal interview and there will be no written test.

(2) Project Management Unit (PMU) - Conservation officer and Project managers, will be recruited through personal interview only, however for the position of Administrative Financial Assistants both written test and personal interview will be conducted. The Project Assistants Grade II will only appear for personal interview and there will be no written test.

Candidates should submit their applications online at the site www.wii.gov.in by **12th March, 2017**. Each candidate can apply at the most for two positions only. Application fees of Rs. 500 will have to be deposited online for each application. Payment can be made via Internet Banking/Debit Card/Credit Card through our online secured payment gateway. Separate online examinations will be carried out for each project positions where applicable at 10 sites across India. The online examination will be held on **26th March 2017**.

The examination will be of one-hour duration with 50 objective type questions of one mark each. There will be twenty-five questions each covering wildlife ecology and management, and on the subject specific domain for the respective positions as specified in the Syllabus. There will be 0.25 negative marking for each wrong answer. The detailed Syllabus has been given in Annexure 3.

Results of the written test shall be declared at the Institute's website (www.wii.gov.in). The short-listed candidates will be called for a personal interview at the Wildlife Institute of India, Dehra Dun. The personal interviews are likely to be held in the first fortnight of April 2017, the specific date of which would be notified to the shortlisted candidates and also hosted on the Institute's website. No TA/DA will be given for attending the written test or the personal interview.

The decision of the Institute Screening Committee in all matters relating to eligibility, work experience, acceptance or rejection of application, mode of selection will be final and binding on the candidates and no enquiry or correspondence will be entertained from any individual or his/her agency. At the time of the verification of original documents, if it is found that an attempt has been made by the applicant to willfully conceal, misrepresent or canvass the facts, his/her candidature will not be considered. A separate declaration form will have to be submitted through online application system.

Annexure 1: Recruitment details for the NMCG Project (49 - Technical Positions)

Component	*Sl. No.	Position	No. of Posts	Work description	Essential qualifications	**Desirable qualifications	Age limit	***Consolidated emolument Rs. (inclusive of allowances)
1. Establishment of Ganga Aqualife Conservation Monitoring Centre	PFU1.1	Project Scientist	1	Candidate will implement the objectives of the Ganga Aqualife Conservation Centre.	Ph.D. in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Veterinary Science/ Life Science or related subjects. Master's degree with minimum of 60% aggregate marks	Expertise in river and wetland ecology or conservation and sound knowledge on biology of aquatic wildlife	45 years	56,000
	PFU1.2	Project Associate (Ecology)	1	Candidate will assist the Project Scientist in implementing the objectives of the Ganga Aqualife Conservation Centre by analyzing available information.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science /Environmental Management / Botany / Zoology / Veterinary Science/ Life Science or related subjects with ≥3 years experience in relevant field.	Experience of policy analysis for natural resource conservation.	40 years	45,200

	PFU1.3	Project Fellow (Ecology & Conservation biology)	3	Candidate will assist the Project Scientist and Associate in field research on ecology and conservation biology on Ganga ecosystem	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Veterinary Science/ Life Science or related subjects with ≥ 1 year experience in relevant field	Research / conservation experience on aquatic mammals / wetland ecology.	35 years	32,000
	PFU1.4	Project Fellow (RS & GIS)	1	Candidate will work on GIS and Remote Sensing component	Master's degree with minimum of 60% aggregate marks in Geo-information/ Life Science/ Environmental Science / M.Tech. in Environmental Engineering/ Remote Sensing & GIS or related subjects	Experience of working on wildlife and aquatic habitat evaluation	35 years	32,000
	PMU1.4	Database operator	1	Candidates will develop and maintain Ganga aqualife database. Develop and maintain web page on Ganga aqualife	Bachelor's degree with minimum of 60% aggregate marks in computer science with ≥ 1 year experience in relevant field	Experience of development and management of database and web designing	35 years	32,000
	PFU1.5	Project Assistant Grade II	2	Candidate will assist the Project Associate and Fellows in field ecological research and literature survey on Ganga river and its biodiversity.	Bachelor's degree with minimum of 60% aggregate marks in any subject.	Experience and enthusiasm in implementing conservation projects.	30 years	20,000

2. Planning Aquatic Species Restoration for Ganga River	PFU2.1	Project Scientist	1	Candidate will prepare the Biodiversity profile of Ganga River and develop pilot species restoration plans for select species and river stretches.	Ph.D. in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Veterinary science/ Life Science or related subjects. Master's degree with minimum of 60% aggregate marks	Expertise in wetland ecology and conservation. Sound knowledge on biology of aquatic wildlife.	45 years	56,000
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	PFU2.2	Project Associate (Ecology)	2	Candidate will coordinate the field sampling for biodiversity profiling and assessing various environmental parameters.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Botany / Zoology / Life Science or related subjects with ≥ 3 years experience in relevant field	Experience in population estimation of wildlife/aquatic species and habitat assessment; good analytical skills.	40 years	45,200
	PFU2.3	Project Fellow (One each for (1) aquatic botany, (2) invertebrates, (3) fish, (4) Amphibians, (5) Turtles and crocs, (6) birds and mammals)	6	Field sampling for biodiversity profiling and assessing various environmental parameters.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Environmental Management / Botany / Zoology / Life Science or related subjects with ≥ 1 year experience in relevant field.	Experience in wildlife conservation/ ecology / Application of wildlife related software.	35 years	32,000
	PMU2.4	Project Associate (Conservation Genetics)	1	Candidate will collect the tissue samples from selected aquatic species. Lab work including DNA sequencing/genotyping and statistical analysis to derive genetic variability and gene flow.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Botany / Zoology / Life Science Biotechnology/Genetics/ Biochemistry/ Microbiology or related subjects with ≥ 3 years experience in relevant field	Candidates with adequate knowledge in conservation genetics and molecular biology techniques including DNA sequencing/genotyping and statistical analysis for deriving genetic variability and gene flow.	40 years	45,200

	PMU2.5	Project Fellow (Conservation Genetics)	1	Candidate will assist the Project Associate in tissue collection and Lab work.	Master's degree with minimum of 60% aggregate marks in Life Science with specialization in Wildlife Science / Forestry / Environmental Science/ Botany / Zoology / Life Science Biotechnology/Genetics/ Biochemistry/ Microbiology or related subjects with ≥ 1 year experience in relevant field.	Work experience in DNA extraction and running electrophoresis.	35 years	32,000
	PMU2.6	Project Associate (Eco-Toxicology)	1	Collection of samples of biotic and abiotic components from the field. Lab work of toxicological profiling including Pesticide residue analysis through GC, GC/MS and heavy metal detection using AAS and report writing.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Botany / Zoology / Life Science or related subjects with ≥ 3 years experience in relevant field	Prior Working knowledge of GC, GC/MS and analytical chemistry. Demonstrated ability to perform analysis using QuEChERS method.	40 years	45,200
	PMU2.7	Project Fellow (Eco-Toxicology)	1	Candidate will assist the Project Associate collection of samples of biotic and abiotic components from the field. Lab work of toxicological profiling including Pesticide residue analysis through GC, GC/MS and heavy metal detection using AAS and report writing.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Environmental Management / Botany / Zoology / Life Science or related subjects with ≥ 1 year experience in relevant field	Working knowledge of GC, GC/MS, AAS, analytical chemistry and eco-toxicology	35 years	32,000

	PMU2.8	Project Associate (RS & GIS)	1	Creation of spatial database on aquatic wildlife, habitat condition and areas with potential to augment the growth of wildlife population. Preparation of spatial risk maps and spatial modeling.	Master's degree with minimum of 60% aggregate marks in Geo-information/ Life Science/ Wildlife science/ Environmental Science / M.Tech. in Environmental Engineering /Remote Sensing & GIS or related subjects with ≥ 2 years experience in relevant field	Experience in Remote Sensing & GIS Competency in Arc GIS, ERDAS-IMAGINE and other Open Source software.	40 years	45,200
	PMU2.9	Project Fellow (RS & GIS)	1	Candidate will assist the Project Associate in creation of spatial database and other lab works. Conduct field work, when required for spatial modeling.	Master's degree with minimum of 60% aggregate marks in Geo-information/ Life Science/ Environmental Science / M.Tech. in Environmental Engineering/ Remote Sensing & GIS or related subjects	Experience in projects related to GIS and Remote Sensing after Master's degree particularly experience of working on wildlife and aquatic habitat	35 years	32,000
	PFU2.10	Project Assistant Grade II	3	Candidate will assist in field sampling for biodiversity profiling and assessing various environmental parameters.	Bachelor's degree with minimum of 60% aggregate marks in any subject.	Masters' degree with minimum of 60% aggregate marks in any discipline. Experience and enthusiasm in implementing conservation projects; ability to work in harsh field conditions.	30 years	20,000
3. Capacity Building of Forest Department and Other Stakeholders	PFU3.1	Project Associate (Training coordinator)	1	Capacity building workshops on management planning of wetlands and aquatic habitat, for officials of forest department and other line agencies of selected states from Ganga basin.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science / Botany / Zoology / Life Science or related subjects with ≥ 3 years experience in relevant field	Experience in teaching/organizing capacity building workshops	40 years	45,200

	PFU3.2	Project Fellow (Training)	1	Candidate will assist the Project Scientists in conducting workshops and training programmes.	Masters' degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science or Management / Botany / Zoology / Life Science or related subjects or Economics/ Sociology/ Political science with ≥1 year experience in relevant field	Experience in teaching/training/conservation on organizing capacity building programmes.	35 years	32,000
4. Establishment of Rescue and Rehabilitation Centres	PFU4.1	Project Scientist	1	Candidate will establish, coordinate and implement the objectives of the Aquatic Wildlife Rescue and Rehabilitation Centres.	Ph.D. in Wildlife Science / Veterinary Science/ Forestry / Environmental Science / Environmental Management / Botany / Zoology / Life Science or related subjects. Master's degree with minimum of 60% aggregate marks	Experience in handling of emergent situations pertaining to higher aquatic vertebrate fauna.	45 years	56,000

	PFU4.2	Project Associate	1	Candidate will assist the Project Scientist in implementation of activities in the Aquatic Wildlife Rescue and Rehabilitation Centres.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science / Zoology / Life Science/ Veterinary Science with ≥ 3 years experience in relevant field	Ph.D. Degree in relevant subject. Experience in conservation aquatic species conservation.	40 years	45,200
	PFU4.3	Project Biologist	2	Candidate will assist the Project Scientist and Associate in implementation of activities in the Aquatic Wildlife Rescue and Rehabilitation Centres.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Environmental Management / Botany / Zoology / Life Science /Veterinary Science or related subjects with ≥ 1 year experience in relevant field	Experience in research/ conservation/ rescue and rehabilitation of freshwater aquatic species.	35 years	32,000
5. Community Based Conservation Programmes for Species Restoration in Ganga River	PFU5.1	Project Scientist	1	Candidate will coordinate and implement the Purposive sampling and surveys for conducting stakeholder analysis. Facilitate establishment of local level institutions and mobilize support for community based conservation programmes.	Ph.D. in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Veterinary science/ Life Science or related subjects. Master's degree with minimum of 60% aggregate marks	Experience of Community based Conservation Programmes/research on ecosystem services/ natural resource management and good writing skills.	45 years	56,000

	PFU5.2	Project Associate	2	Candidate will assist the Project Scientist and organize the meetings of council members for ensuring effective working.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science/ Environmental Management / Botany / Zoology / Life Science/ Economics/ Sociology/ Political science with ≥ 3 years experience in relevant field.	Experience of Community based Conservation Programmes/research on ecosystem services/ natural resource management and good writing skills.	40 years	45,200
	PFU5.3	Project Fellow	5	Candidate will assist the Project Scientist and Project Associate in organizing meetings. Conduct the survey and stakeholders meetings.	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Life Science/ Economics/ Sociology/ Political science with ≥ 1 year experience	Experience in conducting social survey and stakeholder analysis; Ability to work in harsh field conditions.	35 years	32,000
	PFU5.4	Project Assistant Grade II	2	Candidate will conduct social surveys.	Bachelor's degree with minimum of 60% aggregate marks in any subject.	Masters' degree with minimum of 60% aggregate marks in any discipline. Experience and enthusiasm in implementing conservation projects; ability to work in harsh field conditions.	30 years	20,000
6. Nature Interpretation and Education for Biodiversity Conservation of Ganga River	PFU6.1	Project Scientist	1	Candidate will develop education material and exhibits for interpretation centers and on site delivery and conduct of training programs.	Ph.D. in Wildlife Science / Forestry / Environmental Science / Environmental Management / Botany / Zoology / Veterinary science/ Life Science or related subjects. Master's degree with minimum of 60% aggregate marks	Experience of Conservation education and nature interpretation. Knowledge of relevant designing software.	45 years	56,000

	PFU6.2	Project Associate (Fine Arts)	2	Candidate will assist the Project Scientist in visualizing and development of educational material including exhibits for interpretation centres and conduct of training programs	Masters' degree with minimum of 60% aggregate marks in Fine arts/ communication/ journalism with ≥ 3 years experience in relevant field	Experience in preparing line sketches in Charcoal and pencil and landscape painting. Conceptualizing and preparing sketches for education materials. Knowledge of relevant digital designing software. Experience of developing communication material for extension and outreach in English and Hindi	40 years	45,200
	PFU6.3	Project Fellow	1	Candidate will assist the Project Scientist and Project Associate in providing researched information for education material, development of exhibits for interpretation centers on site delivery and conduct of training programs	Master's degree with minimum of 60% aggregate marks in Wildlife Science / Forestry / Life science / Sociology with ≥ 1 year experience in relevant field	Knowledge of interpretation Knowledge of developing awareness material in English and Hindi	35 years	32,000
	PFU6.4	Project Assistant Grade II	2	Candidate will assist in designing awareness material, signage and panels for interpretation centres	Bachelor's degree with minimum of 60% aggregate marks in any subject	Masters' degree with minimum of 60% aggregate marks in any discipline. Experience in Graphic designing and knowledge of designing software.	30 years	20,000

Annexure 2: Recruitment details for Project Management Unit (Administrative)

	*Sl. No.	Position	No. of Posts	Work description	Essential qualifications	**Desirable qualifications	Age limit	***Consolidated monthly emolument including all allowances (INR)
Project Management Unit	PMUA1	Conservation Officer	1	Candidate will provide scientific and technical support to the Aquatic Species Restoration Programmes in field by mobilizing communities and other stakeholders	Ph.D. in Wildlife Science / Zoology/ Botany / Environmental Science / Environmental Management / Life Science or related subjects. with ≥ 5 years experience in relevant field	Experience of rescue and rehabilitation of aquatic species especially with community participation. Experience of working along Ganga River or other large River Systems	65 years	56,000
	PMUA2	Project Manager (Administration)	1	Candidate will carry out administrative work related to office management and finance management for the project and remotely support the field activities with desk analyses.	Bachelor's /Master's degree in any discipline with ≥ 5 years experience in relevant field.	Knowledge of project management in conservation or Forestry related project. Writing of letters and administrative procedures is must	65 years	42,000
	PMUA3	Project Manager Field Conservation	1	Candidates will provide inputs for establishment of Ganga knowledge Centre in field	Ph.D. in Sociology / Social Science or related subjects with ≥ 5 years experience in relevant field	Retired person with adequate field experience is desirable	65 years	42,000
	PMUA4	Project Assistant Grade II (Administration)	2	Candidate will assist Project Manager in administrative and office management and field teams	Bachelor's degree in any discipline with ≥ 1 year experience in relevant field	Knowledge of computer in MS Office, Internet and email; knowledge of typing in English; working knowledge of office procedures; skills of noting and drafting of official letters	40 years	20,000

	PMUA5	Project Assistant Grade II (Finance)	1	Candidate will carry out accounts, finance and audit related work for the project.	Bachelor's degree in Commerce with ≥1 year experience	Knowledge of accounting with expertise in accounting software TALLY; use computer in MS Windows, Excel, Internet and email; Experience of preparing cash book, financial reports, balance sheet and filling tax returns	40 years	20,000
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* The serial number (Sl. No.) segregates posts based on the unique eligibility qualifications and MUST BE mentioned in the application form.

** Desirable qualifications are only indicative in nature.

*** Compensation for Medical & Accident Insurance, Telephone/Communication and Accommodation. No other allowance is applicable

ANNEXURE 3: WRITTEN TEST SYLLABUS

1. Wildlife ecology – 25 marks (Compulsory for all positions)

Basic concepts of ecosystem, evolution, community ecology and bio-statistics. Bio-geography of India. Habitat ecology of arid grassland/savanna, wetland and coastal ecosystems. Demography, population dynamics and meta-population concepts.

In situ and ex situ conservation. Management of small and insular populations. Role of protected areas in biodiversity conservation. Conservation genetics (Small and declining population paradigms: inbreeding depression & bottleneck etc). Remote Sensing & GIS.

Translocation and reintroduction of endangered and vulnerable species in India. Major species specific conservation programs (e.g.: Project Tiger, Crocodile Project etc). Human - wildlife interactions and their impacts (e.g.: Developmental projects – impacts of dams and barrages, fishery – wildlife conflicts conflict).

Basic concepts of ecodevelopment, relocation of village and compensatory mechanisms. Legal instruments for conservation: Wildlife (Protection) Act, 1972; Indian Forest Act, 1927; Forest (Conservation) Act, 1980; and Environmental (Protection) Act, 1986. International agreements and conventions (CITES, CMS, CBD and Ramsar).

2. Subject domain syllabus – 25 marks

(a) Aquatic ecology (For position No. PFU1.1, PFU1.2, PFU1.3, PFU2.1, PFU2.2, PFU2.3, PFU3.1, PFU3.2, PFU4.1, PFU4.2, PFU4.3) (For Project scientist, Project Associate and Research Fellow Levels).

Biology of aquatic vertebrates. Concept and application of ecotoxicology, e-flows and eco-restoration. Management of wetland and coastal habitats.

(b) Veterinary Science (For position No. PFU4.1 & PFU4.2) (For Project scientist and Project Associate)

Wildlife Health, Wildlife Disease, Anesthesia

(c) Remote sensing & GIS (For position No. PFU1.4, PFU2.9, PFU2.10) (Project Associate and Research Fellow Levels)

Principles of Remote Sensing and Image Interpretation. Remote sensing platforms; Types and characteristics of sensors. Methods and techniques of image interpretation. Definition and scope of GIS; functional requirements of GIS: GIS components; Recent trends and applications of GIS; Spatial and non spatial; Data models: Raster and vector; Database Management System (DBMS); Data Structures: Relational, hierarchical and network; Data input: Digitization of maps and imageries; Coordinate transformation; Attribute data generation. Application of Remote sensing and GIS in wildlife habitat management.

**(d) Community Based Conservation Programmes (For positions PFU5.1, PFU5.2 & PFU5.3)
(Project Associate and Research Fellow Levels)**

Rationale for undertaking community based conservation programme (CBM) and Ecodevelopment projects. Basic concepts, key issues in the ongoing debate on community based conservation programme and ecodevelopment. Ecodevelopment interventions in the context of existing legislation.

Community diversity. Significance of community participation in ecodevelopment, significance of Local Traditional Knowledge (LTK) in conservation. Community beliefs and value systems governing conservation, dependencies of local communities on PAs/ natural resource.

Stakeholders in conservation. Stakeholder mapping and SWOT analysis. Conflicts amongst the stakeholders and mitigation strategies. Reasons for collaborative management, issues in developing framework for collaborative partnerships.

Wetland conservation and community's role. Village prioritization, participatory tools and methods for gathering data for planning CBM and Ecodevelopment. Project cycle, logical frame work for project preparation, problem analysis, objective setting, and identification of strategies to address problems. Developing project framework and monitoring protocol.

**(e) Interpretation and Conservation Education (For positions PFU6.1, PFU6.2 & PFU6.3)
(Project Associate and Research Fellow Levels)**

Concepts, principles and objectives of nature interpretation. History of interpretation in relation to Protected Areas/Wetlands. Interpretation as a management tool. Attended and unattended services. Basic theory & models of communication. Interpretation as a communication method.

Sustainable development, significance of ensuring sustainability in tourism. Environmental, economic social-cultural and experiential sustainability. Ways to make tourism sustainable.

Different types of tourism, nature tourism, sustainable tourism and ecotourism. What is and what is not ecotourism. Common themes and principles. Defining an ecotourist. Are ecotourists benign? Significance of visitor impacts. The determinants of tourism impacts, positive and negative impacts. Ecological, economic, social, cultural and experiential impacts. Impacts and their effect on resident attitudes.

Visitor management approaches to minimize environmental impacts. Zonation, rules and regulations, Marketing interpretation. Managing social and cultural impacts. Infrastructure development.

1. Database management (For position PMU1.4): (Research Fellow Level)

Installation, configuration and tuning a database, administering servers and server groups, managing and optimizing schemas, tables, indexes, and views, creating logins, configuring permissions, assigning roles and performing other essential security tasks, backup and recovery strategies, automation and maintenance, importing and exporting and transforming data from

various sources, implementing replication and data merging, and managing data publications and subscriptions.

2. Conservation genetics (For position No. PMU2.5 & PMU2.6) (Project Associate and Research Fellow Levels)

The aims and scope of conservation genetics. Conserving biodiversity. The extinction and causes of extinction. Threatened, endangered and extinct species. Genetic factors in conservation biology. Species and population genetic information needed to manage threatened species. Genetic diversity and importance of genetic diversity. Measuring genetic diversity. Maintaining genetic diversity. Genetic diversity and evolutionary potential.

Origins of genetic diversity. Mutation. Migration and gene flow. Natural selection and adaptation. Interactions between genotype and environment. Genetic diversity and small population size. Population fragmentation. Loss of genetic diversity and reduced fitness. Genetic drift. Inbreeding and inbreeding depression. Effective population size.

Importance of systematics and taxonomy. Higher order taxonomic groups. Genetic analysis in defining species and sub-species. Genetic distance and differences between populations. Phylogenetic trees.

Wild populations. Fragmented populations. Captive populations and reintroduction. Diagnosing genetic problems. Increasing population size. Introgression. Hybridization. Impacts of harvesting.

3. Eco-toxicology (For position No. PMU2.7 & PMU2.8) (Project Associate and Research Fellow Levels)

Environmental chemistry: This part comprises an overview of different chemical groups of anthropogenic origin present in the environment. Focus will be on their sources and fate in the environment.

Effects of anthropogenic chemicals: This part comprises negative effects of chemicals on different biological organisation levels (cell, organ, organism, population, ecosystem) with focus on mechanisms. Experimental and theoretical projects are carried out and the students present the projects orally and in writing.

Hazard assessment: This part comprises retrieval and critical evaluation of toxicological information from different sources (internet-based databases, hand books, scientific articles etc.) for classification and labeling of chemicals. The students perform as an individual project a classification and labeling of chemicals dangerous for the environment according to EU guidelines and present their findings orally and in writing. According to current legislation the chemical industry is responsible for classification and labeling of chemicals.

Environmental risk assessment: This part comprises environmental risk assessment of chemicals. The environmental risk assessments are performed as projects and are presented orally and in writing.

Written and practical test for Administrative positions - 25 marks objective type questions and practical 25 marks)

(For positions No. PMUA4 & PMUA5 at LDC Level)

Accountancy and auditing, Computer skills in accountancy. English language usage; grammar, antonyms and synonyms. Computer application. General knowledge and stenography

