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# **EXECUTIVE SUMMARY**

Name of the Course	RC in Environmental Science
Name of the Course	The Hermitage, UGC-Human Resource Development Centre Kumaun
Venue	University, Nainital.
	·
Date	14- 28 September 2020
Organizing Agency	UGC-Human Resource Development Centre, Kumaun University,
	Nainital.
Patron	Hon'ble Vice-Chancellor, Prof. N.K. Joshi, Kumaun University,
	Nainital.
Course Team	
Director	Prof. B.L. Sah, Director, UGC-Human Resource Development
	Centre, Kumaun University, Nainital
<b>Deputy Director</b>	Dr. Divya Upadhayay Joshi, Deputy Director, UGC-Human Resource
	Development Centre, Kumaun University, Nainital
<b>Assistant Director</b>	Dr. Reetesh Sah, Assistant Director, UGC-Human Resource
	Development Centre, Kumaun University, Nainital
Officials	Mr. I.S. Negi, Dr. Rajendra Singh Bora, Mr. Jasod Singh Bisht,
	Mr. Arvind Singh, Mr. Kailash, Mr. Rajendra
No. of Participants attended	40
No. of Participants applied	67

Interactive Session, Climate Change, Discussion/Interaction with Course Coordinator, Animal biodiversity, Plagiarism, Management of Forests and Plantation, Biodiversity and its role in Environmental conservation, Environmental acts and policies, Important Issues in Environmental Science and assignment related discussion, Assignments, Forest Resource Service and Conservation Strategies, Climate, Change, Biodiversity, Medicinal Plant's Distribution and Status, Uses of Remote Sensing and GIS, He was external for micro teaching session, Activity, Natural Hazards: Causes and Mitigation, Kailash Mansarovar, Himalayan Flora and Fauna, Harnesses values of Himalayan Diversity, Some basis of Environmental Science and Environmental Education, Reclamation of wastewater for its reuse and water security through sustainable water resource management", "Natural principles of wastewater treatment (Vegetation Filter System - VFS)", PPT Presentation, Community Partnership to Enhance local Resilience, Creating Pool of CRPs to Cope with Climate, Environmental discourses and sustainable development

## **Invitation Letter for Participants**

**Ref. No:** UGC–HRDC/KU/PRO/RC/20-21 **Date:** 12/09/2020

Subject: Refresher Course in Environmental Science

Dear Participant,

Your online application for participation in **Refresher Course in Environmental Science** has been accepted. The course is scheduled from **14-09-2020** to **28-09-2020** at the UGC-Human Resource Development Centre, Kumaun University, Nainital.

As per the UGC notification, all the programmes allotted to the HRDC will be done through online mode of delivery. Attendance in all the session is compulsory. Kindly ensure that you join the google meet at 09.55 am during the duration i.e. working days of the course.

E-Certificates will be issued after successful completion of the course.

The details of registration fee and general instructions are enclosed with this letter.

We look forward to seeing you through online during the course at the UGC-Human Resource Development Centre, Kumaun University, Nainital.

Sincerely,

Be sah (Prof. B. L. Sah) Director

To,

Dr. Shalmali Hui Hijli College P.O. Hijli Co-operative, Kharagpur-721306, Paschim Medinipur, West Bengal

#### **General Instructions:**

- As per the UGC notification, all the programmes allotted to the HRDC will be done through online mode of delivery for the year 2020-2021.
- Target Group: All regular faculties of Universities/ Colleges that are included under section 12 (b)/2(f) of the UGC Act. The contract teachers who have been teaching for at least 03 academic sessions may be permitted.
- Course will be of two week duration spread over a total of 12 working days comprising of 72 contact hours @ six hours per day.
- Classes will commence at 10.00 am continue till 5.00 pm in the evening. There will be a lunch break from 1 pm to 1.45 pm besides two tea-breaks of 15 minutes each at 11.15 am and 03.15 pm.
- Mode of Delivery: Online Sessions on Google Meet.
- Requirement for the Course: Desktop/ Laptop/ Smart phone with good Internet connectivity (Webcam, Microphone, headphones and Multimedia enabled).
- Participants will keep their audio/video in off mode and put it on as and when desired.
- Full attendance in all the sessions is mandatory for all the participants.
- Number of sessions conducted and number of sessions attended by the participants will be mentioned on the participation certificate.
- Participants will prepare a brief report/feedback on each day and every session as well as
  on the whole course and email it to the HRDC Course-coordinator daily.
- Check WhatsApp group on regular basis for updates. Pin it for the duration of course.

### Schedule

# UGC Human Resource Development Centre Kumaun, University Nainital Environmental Science (14-28 September 2020)

- Seminar-20 Marks
- Project/Survey-20 Marks
- ICT Based Teaching -20 Marks multiple choice objective test -20 Marks
- Overall response-20 Marks
- In 1st & 2nd Session Lectures will be scheduled of Resource Persons
- In 3<sup>rd</sup> & 4<sup>th</sup> Session 01 Lecture and 01 activity or 02 activities can be planned as per your convenience.

DATE/DAY	SESSION	TOPIC	RESOURCE PERSON
14.0 4 1	00.45.10.20	T. 1	RESOURCE I ERSON
14 September 2020	09.45-10.30 am. 10.30 -11.00 am.	Introduction	C
Monday		Inaugural Function/	Course Team
Williay	11.00-11.30 am	Interactive	Course Team
	11.45-01.15 pm	Climate Change	Dr. Anand Sharma
	01.15—02.00	LUNCH	
	pm.	G1: G1	D 4 1.01
	02.00 -03.15 pm	Climate Change	Dr. Anand Sharma
	03.30 -04.30 pm.	Discussion/ Interaction with Course Coordinator	Prof. Jeet Ram
15 September	09.45-11.15 am.	Animal biodiversity	Prof. Prakash Joshi
_2020	11.30 -01.00 pm.	Plagiarism	Prof. Prakash Joshi
Tuesday	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Management of Forests and	Prof. Laxman Singh
		Plantation	Lodhiyal
	03.00 -04.30 pm.	Management of Forests and	Prof. Laxman Singh
		Plantation	Lodhiyal
16 September	09.45-11.15 am.	Biodiversity and its role in	Prof. Uma Melkania
2020 Wednesday		Environmental conservation	
	11.30 -01.00 pm.	Environmental acts and policies	Prof. Uma Melkania
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Important Issues in Environmental	Prof. Jeet Ram
		Science and assignment related	
		discussion	
	03.00 -04.30 pm.	Assignments	Prof. B.L. Sah
17 September	09.45-11.15 am.		
2020	11.30 -01.00 pm.		
Thursday	01.00-01. 30 pm.	+	HHPH $=HVHHYYPHHF$
	01.30 -03.00 pm	╆═┩┇╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃╃	Ÿ╫ <b>∁</b> ⋬⋿┧╀╟┩╫╟Ÿ╟ <b>┩</b> ╎╱
	03.00 -04.30 pm.		
18 September	09.45-11.15 am.	Climate Change understanding the	Prof. P.C. Tewari
2020	55.10 11.10 will.	process and identifying possible	1101.1.0. 10waii
Friday		resource	
	ļ	10000100	

	11.30 -01.00 pm.	Climate Change understanding the process and identifying possible resource	Prof. P.C. Tewari
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Forest Resource Service and Conservation Strategies	Dr. Anil Kumar Yadav
	03.00 -04.30 pm.	Forest Resource Service and Conservation Strategies	Dr. Anil Kumar Yadav
19 September 2020	09.45-11.15 am.	Climate Change	Dr. Anand Kumar Sharma
Saturday	11.30 -01.00 pm.	Climate Change	Dr. Anand Kumar Sharma
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Biodiversity	Prof. Lalit Tewari
	03.00 -04.30 pm.	Medicinal Plant's Distribution and Status	Prof. Lalit Tewari
20 September	09.45-11.15 am.		
2020	11.30 -01.00 pm.		
Sunday	01.00-01. 30 pm.		$)/\Delta \setminus $
	01.30 -03.00 pm		
	03.00 -04.30 pm.		
21 September 2020	09.45-11.15 am.	Uses of Remote Sensing and GIS	Dr. Chander Mohan Sharma
Monday	11.30 -01.00 pm.	Uses of Remote Sensing and GIS	Dr. Chander Mohan Sharma
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	He was external for micro teaching session	Dr. N.C. Dhondiyal
	03.00 -04.30 pm.	He was external for micro teaching session	Dr. N.C. Dhondiyal
22 September 2020	09.45-11.15 am.	He was external for micro teaching session	Dr. S.K.S. Rathore
Tuesday	11.30 -01.00 pm.	He was external for micro teaching session	Dr. S.K.S. Rathore
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Activity	
	03.00 -04.30 pm.	Activity	
23 September 2020	09.45-11.15 am.	Natural Hazards: Causes and Mitigation	Prof. P.D. Pant
Wednesday	11.30 -01.00 pm.	Natural Hazards: Causes and Mitigation	Prof. P.D. Pant
	01.00-01. 30 pm.	LUNCH	•
	01.30 -03.00 pm	Kailash Mansarovar	Padma Shri Anup Sah
	03.00 -04.30 pm.	Himalayan Flora and Fauna	Padma Shri Anup Sah
24 September 2020	09.45-11.15 am.	Harnesses values of Himalayan Diversity	Dr. R.S. Rawal
Thursday	11.30 -01.00 pm.	Harnesses values of Himalayan Diversity	Dr. R.S. Rawal
	01.00-01. 30 pm.	LUNCH	
	01.30 -03.00 pm	Some basis of Environmental Science and Environmental	Prof. N.P. Melkania
		Education	

	03.00 -04.30 pm.	Some basis of Environmental Science and Environmental Education	Prof. N.P. Melkania	
25 September 2020 Friday	09.45-11.15 am.	Reclamation of wastewater for its reuse and water security through sustainable water resource management"	Prof. R. K. Srivstava	
	11.30 -01.00 pm.	"Natural principles of wastewater treatment (Vegetation Filter System - VFS)"	Prof. R. K. Srivstava	
	01.00-01. 30 pm.	LUNCH		
	01.30 -03.00 pm	PPT Presentation	Prof. Jeet Ram	
	03.00 -04.30 pm.	PPT Presentation	Prof. Jeet Ram	
26 September 2020 Saturday	09.45-11.15 am.	Community Partnership to Enhance local Resilience, Creating Pool of CRPs to Cope with Climate	Dr. Pankaj Tiwari	
	11.30 -01.00 pm.	Community Partnership to Enhance local Resilience, Creating Pool of CRPs to Cope with Climate	Dr. Pankaj Tiwari	
	01.00-01. 30 pm.	LUNCH		
	01.30 -03.00 pm	PPT Presentation	Prof. Jeet Ram	
	03.00 -04.30 pm.	PPT Presentation	Prof. Jeet Ram	
27 September	09.45-11.15 am.			
2020 Sunday	11.30 -01.00 pm. 01.00-01. 30 pm. 01.30 -03.00 pm 03.00 -04.30 pm.			
28 September 2020	09.45-11.15 am.	Environmental discourses and sustainable development	Prof M P Dube	
Monday	11.30 -01.00 pm.	Environmental discourses and sustainable development	Prof M P Dube	
	01.00-01. 30 pm.	LUNCH		
	01.30 -03.00 pm	Valedictory Session		
	03.00 -04.30 pm.			

# **List of Participants**

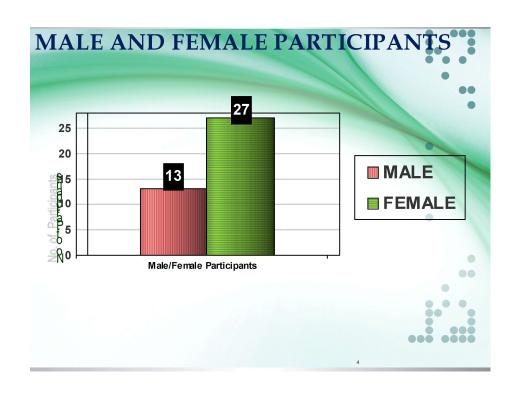
#### UGC Human Resource Development Centre Kumaun, University Nainital Summer School (26 August- 08 September 2020)

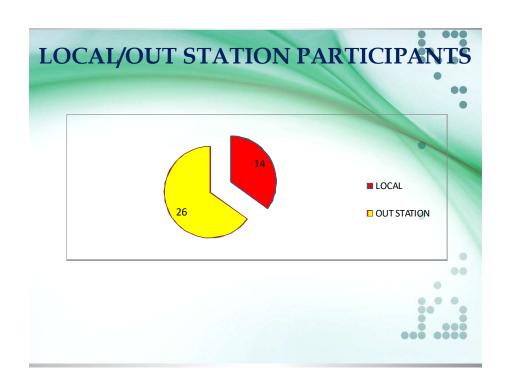
S. No.	Name of the Applicant	Name of Campus/ College/institution	E-mail	Mobile No.	Cat.	M/F	Designation	Subject
1.	Anumita Sarkar	Government General Degree College, Singur	anu.microb io.bot@ gmail.com	9474603446	Gen	F	Assistant Professor	Botany
2.	Bhuwan Chandra Joshi	MB Govt. Pg College	Bhuwanche m123@ gmail.com	7310544484	Gen	M	Assistant Professor	Chemistry
3.	Clara Ermine Sawian	St. Anthony's College, Shillong	clarasawian 2@gmail. com	9181079244 64	ST	F	Assistant Professor	Biotech- nology
4.	Dr. Bhawana Joshi	Government Degree College Kotabag Nainital	bhwnpatha k@gmail. com	8433297125	Gen	F	Assistant Professor	Hindi
5.	Dr. Hemlata Pandey	Government Degree College Haripur Nihastha Raibarelly	hemlata.pa ndey86@ gmail.com	8318815702	Gen	F	Assistant Professor	Home science
6.	Dr. Kailash Ram	Government Degree College, Jakhini, Varanasi	drkailashgd c2012@ gmail.com	9452569966	SC	M	Assistant Professor	Agri- culture Botany
7.	Dr. Munna Joshi	S.C.S.S. Government Degree College Kapkote	drmunnajos hi73@gmai l.com	9690114546	Gen	M	Assistant Professor	sanskrit
8.	Dr. Punam Sadana	Maharaj Singh College, Saharanpur	punamsada na@gmail. com	8218852297	Gen	F	Assistant Professor	Chemistry
9.	Dr. Veena Singh	Rajiv Gandhi Govt. PG College Mandsaur MP	mrsveena2 0@gmail. com	8839636092	OBC	F	Assistant Professor	English
10.	Dr. Bhoopnarain Dixit	Government Degree College, Banbasa (Champawat)	bndspn@ gmail.com	9410101810	Gen	M	Assistant Professor	English
11.	Dr. Chandra Pal Singh	University Maharaja's College, Jaipur	chandrapal 203@gmail .com	8107924464	OBC	M	Assistant Professor	Botany
12.	Dr. Chandravati Tamta	Dr. S. N. Govt. PG College Karanparyag Chamoli	Chandravat itamta86@ gmail.com	7060702474	SC	F	Assistant Professor	Sanskrit
13.	Dr. Fauzia Khan	Vral Govt. Girls Degree College, Bareilly	fauzik19@ gmail.com	9412501172	Min.	F	Assistant Professor	Zoology
14.	Dr. Kamble Umakant Pandharinath	Shivaji Mahavidyalaya , Renapur	drrumakant @gmail. com	9970254216	SC	M	Assistant Professor	Zoology
15.	Dr. Neelam Baliyan	Sahu Jain College	baliyanneel am@gmail.	7451095415	OBC	F	Assistant Professor	Chemistry

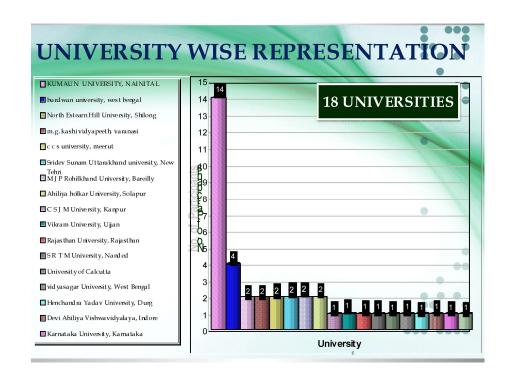
			com					
16.	Dr. Neeta Shah	S.C.S.S. Government Degree College Kapkote Bageshwar	neetashah9 14@gmail. com	9012766284	Gen	F	Assistant Professor	Hindi
17.	Dr. Poonam Tripathi	M.B. Govt. P.G. College Haldwani Nainital Uttarakhand	poonam769 @gmail. com	9410585964	Gen	F	Assistant Professor	Zoology
18.	Dr. Rajguru Sachin Adinath	S.S.A's Arts and Commerce College, Solapur	rajgurusach in4@gmail.	8149595402	SC	M	Assistant Professor	Geog- raphy
19.	Dr. Saswati Roy	Sarsuna College	saswatiroy 2008@yah oo.co.in	8777397548	Gen	F	Assistant Professor	Geog- raphy
20.	Dr. Shaila Joshi	Gov Degree Collage Chinyalisaur Uttarkashi	dr.shailajos hi1@gmail. com	8126510374	Gen	F	Assistant Professor	Hindi
21.	Dr. Shalmali Hui	Hijli College	mamoni06 @gmail. com	9189186290 08	Gen	F	Assistant Professor	Chemistry
22.	Dr. Sneh Lata	R. H. Govt. PG College, Kashipur, Uttarakhand	latasneh.ks p2020@gm ail.com	9411511115	Gen	F	Assistant Professor	Botany
23.	Dr. Uma Kant Singh	Shri Baldev Post Graduate College Baragaon, Varanasi, U. P., India	druksingh2 001@gmail .com	9451939372	OBC	M	Assistant Professor	Geog- raphy
24.	Dr. Vikram Singh	Govt. Degree College Gangolihat (Pithoragarh)	vikramrath our2010@ gmail.com	9411166323	Gen	M	Assistant Professor	Hindi
25.	Dr. D.S. Narayankar	S.S.A. Arts and Commerce College, Solapur	d.snarayan kar@gmail. com	9850882519	SC	M	Assistant Professor	Geograph y
26.	Dr. Pawan Kumar Jha	S.C.S.S Govt. Degree College, Kapkote	dr.pawanku marjha22@ gmail.com	8395067757	Gen	M	Assistant Professor	economics
27.	Jagwati	Government P. G. College, Bageshwar (Uttarakhand)	Jagwati. Singh@ yahoo.com	7055456008	ST	F	Assistant Professor	Geog- raphy
28.	Jasmine Therese Sawian	St. Edmund's College, Shillong	jsawian@ gmail.com	9863018917	ST	F	Assistant Professor	Environm ental Science
29.	Kiran Lata Pande	Government Post Graduate College Ranikhet	kiranpande 572@gmail .com	9412951901	Gen	F	Assistant Professor	Geog- raphy
30.	Mahesh Kumar Alendra	Indira Gandhi Govt. Art & Commerce College Vaishalinager Bhilai	Maheshku mar160619 80@gmail. com	9179508655	ST	M	Assistant Professor	sanskrit
31.	Mamta Mishra	M. B Govt. P. G. College Haldwani	drmamtami shra97@	8938981820	Gen	F	Assistant Professor	Geog- raphy

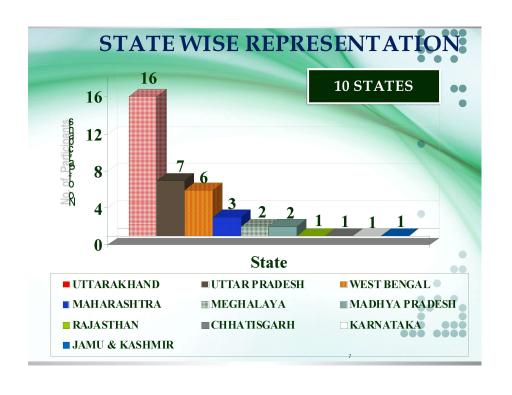
			gmail.com					
32.	Mamta Suyal	S.C.S.S Government Degree College Kapkote	suyalmamt a@yahoo. in	9760011532	Gen	F	Assistant Professor	Drawing & Painting
33.	Manisha Sisodia	S.C.A. Govt. P.G. College Jhabua Mp	drmaanaa4 20@gmail. com	9425444564	SC	F	Assistant Professor	Zoology
34.	Nataraja G.Y.	Vidyodaya Law College	natarajagy @gmail. com	9845740462	OBC	M	Assistant Professor	Law
35.	Purnima Manhas	Government Degree College Doda, J&K	manhaspur nima@gma il.com	9419954963	Gen	F	Assistant Professor	Environ- mental Science
36.	Sayantani Nath	Government General Degree College, Singur	snsayantani 1@gmail. com	9830088197	Gen	F	Assistant Professor	Botany
37.	Soni Mittal	Maharaj Singh College Saharanpur	sonimittal8 @gmail. com	9045753003	Gen	F	Assistant Professor	Chemistry
38.	Sukla Rajak	M.U.C. Women's College	sukla.phy @gmail. com	9475466270	SC	F	Assistant Professor	Physics
39.	Swati	Swami Vivekanand Government PG College Lohaghat	swati.melk ani@gmail. com	9411538852	Gen	F	Assistant Professor	Education
40.	Dr. Amrita Dam	Jamalpur Mahavidyalaya	damamrita @gmail. com	9433812332	Gen	F	Assistant Professor	Sanskrit

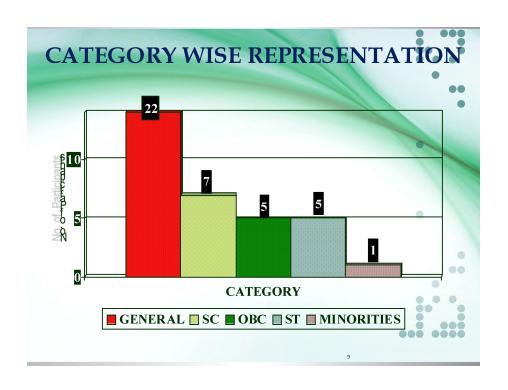
## **Data Illustration**

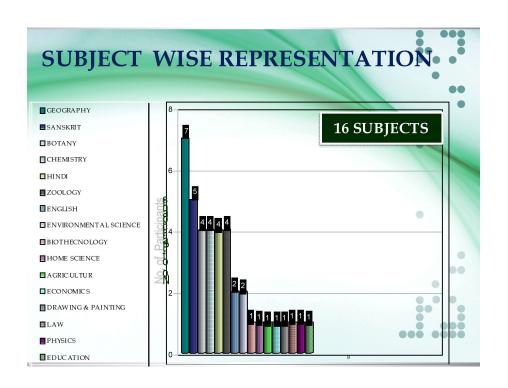


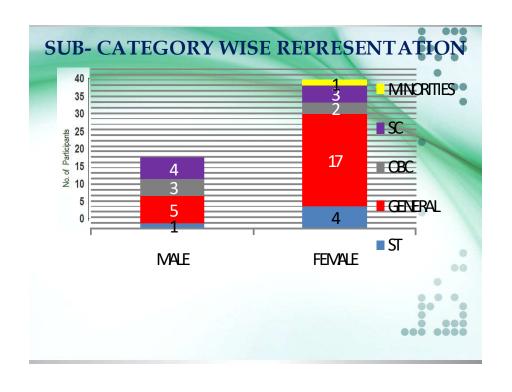


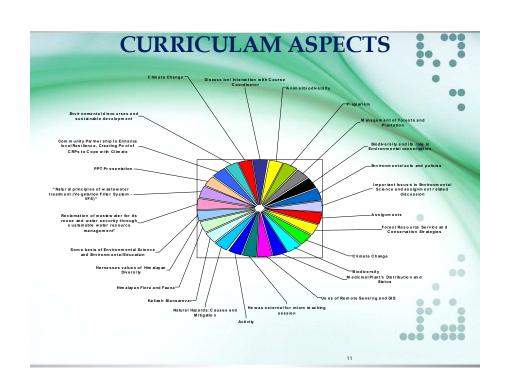












# **List of Day Officers**

# UGC-Human Resource Development Centre, Kumaun University, Nainital Environmental Science (14-28 September 2020)

DATE	DAY Officers
Day-1	Dr. Sneh Lata
Day-2	Dr. Bhawana Joshi
Day-3	Dr. Hemlata Pandey
Day-4	Bhuwan Chandra Joshi
Day-5	Sayantani Nath
Day-6	Dr. Veena Singh
Day-7	Dr. Munna Joshi
Day-8	Dr. Chandra Pal Singh
Day-9	Dr. Neelam Baliyan
Day-10	Dr. Saswati Roy
Day-11	Dr. Vikram Singh
Day-12	Dr. Fauzia Khan

# **Evaluation of Participants**

#### **Participant Performance Evaluation Sheet**

S.l. No.	Name of the Participant	Overall response 20 marks	Research Project Proposal 20 marks	Power Point Presentation 20 Marks	Micro Teaching 20 marks	MCQ 20 marks	Total Max. Marks 100
1.	Anumita Sarkar	18	13	15	16	15	77
2.	Bhuwan Chandra Joshi	18	15	15	16	12	76
3.	Clara Ermine Sawian	18	15	15	15	12	75
4.	Dr. Bhawana Joshi	18	14	15	15	13	75
5.	Dr. Hemlata Pandey	18	15	14	17	13	77
6.	Dr. Kailash Ram	18	16	15	14	12	75
7.	Dr. Munna Joshi	18	14	14	17	13	76
8.	Dr. Punam Sadana	18	13	14	17	13	75
9.	Dr. Veena Singh	18	15	15	15	13	76
10.	Dr. Bhoopnarain Dixit	18	14	15	15	14	76
11.	Dr. Chandra Pal Singh	18	15	12	17	15	77
12.	Dr. Chandravati Tamta	18	14	14	17	15	78
13.	Dr. Fauzia Khan	18	14	14	15	15	76
14.	Dr. Kamble Umakant Pandharinath	18	13	15	15	14	75
15.	Dr. Neelam Baliyan	18	12	16	16	15	77
16.	Dr. Neeta Shah	18	13	14	16	15	76
17.	Dr. Poonam Tripathi	18	13	16	15	15	77
18.	Dr. Rajguru Sachin Adinath	18	14	14	14	15	75
19.	Dr. Saswati Roy	18	14	14	14	15	75
20.	Dr. Shaila Joshi	18	15	14	14	16	77
21.	Dr. Shalmali Hui	14	13	13	15	16	76
22.	Dr. Sneh Lata	13	13	13	15	16	75
23.	Dr. Uma Kant Singh	13	15	13	14	16	76
24.	Dr. Vikram Singh	14	13	13	14	16	75
25.	Dr. D.S. Narayankar	13	12	12	16	16	75
26.	Dr. Pawan Kumar Jha	13	12	12	15	17	75
27.	Jagwati	14	13	13	15	17	77
28.	Jasmine Therese Sawian	14	13	13	16	17	78
29.	Kiran Lata Pande	14	12	12	17	17	78
30.	Mahesh Kumar Alendra	13	12	12	17	17	77
31.	Mamta Mishra	13	13	13	16	17	77
32.	Mamta Suyal	13	13	13	17	17	78
33.	Manisha Sisodia	14	12	12	18	17	79
34.	Nataraja G.Y.	14	12	12	18	16	78
35.	Purnima Manhas	13	12	12	16	17	76
36.	Sayantani Nath	13	12	12	16	18	77
37.	Soni Mittal	13	13	13	15	18	77
38.	Sukla Rajak	13	13	13	15	16	75
39.	Swati	14	15	13	14	15	76
40.	Dr. Amrita Dam	13	14	13	14	16	75