

Criterion III

Research, Consultancy and Extension

3.1 Promotion of Research

3.1.1 Does the institution have recognized research centre/s of the affiliating University or any other agency/ organization?

- Department of Mathematics and Assamese have got recognition for research leading to Ph.D. Degree under Gauhati University.

3.1.2 Does the institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

- There is no any provision for research committee as the college is affiliated under Gauhati University.

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

- To carry out the research project as per design and direction the authority of the college provides necessary arrangement to the investigator in terms of accommodation, release of funds and insisted upon the timely completion of the project. The college authority also emphasized on the publication of the research findings in reputed journals and other publications.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among the students?

- The college is permitted only to carry out under graduate classes and according to syllabus there was no any provision to go for research activities by the students. However minor syllabus based practical activities and drawing of inferences is taught in the departmental laboratories. Different methods of scientific observation like inductive logic, deductive logic etc is taught in the field surveying so that in higher studies the student can apply those methods in pursuing research activities. Presentation of seminar paper by the student on some local issues also boosts up the scientific temper and research culture among the students.

Oblate in the recent syllabus of under graduate course a research based project is in corporate in major course particularly for the students of sixth semester and the departments are preparing for inculcating research culture among the student.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading research projects, engaged in individual/collaborative research activity etc.)

- The details of faculty involved in active research are shown in the following table-

Table 3 (a) : Faculty involved in Active Research

(A) Guiding Students for Ph. D./M. Phil.			
Name of Faculty member	Nature of the Project	Field	University/ Agency
Dr. Alok Das	Guiding students for Ph.D.	Fluid Mechanics	GU
Dr. Lalit Ch. Rabha	Guiding students for Ph.D.	Assamese	GU
Dr. Praneswar Nath	Guiding students for M. Phil	Political Science	V. M. University
(B) Major Research Project			
Dr. Ranjit Baishya.	Major Research Project	Theoretical High Energy Physics	DAE-BRNS
Dr. Tapan Kr. Deka	Major Research Project	Fishery	UGC
	Major Research Project	Microbiology	DBT
Dr. Rekha Chetry.	Major Research Project	Wildlife	ICSSR
Dr. Tapan Dutta.	Research Project	Medicinal Plant	ASTEC
	Major Research Project	Wetland Ecology	UGC
(C) Minor Research Project			
Dr. Ranjit Baishya	Minor Research Project	Theoretical High Energy Physics	UGC
Dr. Susanta Kr. Bhuyan	Minor Research Project	Pharmacology of Medicinal Plant and Biodiversity.	UGC
Dr. Rekha Chetry	Minor Research Project	Wildlife	UGC
Mr. Abani Kr. Das	Minor Research Project	Forest Ecosystem	UGC
Dr. Praneswar Nath	Minor Research Project	Voting Behavior	UGC
Dr Kamaleswar Thakuria	Minor Research Project	Literature and Culture	UGC
Dr. Habibur Rahman	Minor Research Project	Biodiversity, Ethnobotany.	UGC
Dr. J. P. S. Baruah	Minor Research Project	Water analysis	UGC
Dr. Apurba Kr. Goswami	Minor Research Project	Algal Chemistry	UGC
Mrs. Ratnamala Sarma	Minor Research Project	Gender Studies	UGC
Dr. Alok Das	Minor Research Project	Non-Newtonian Fluids	UGC
Dr. Dipankar Sarma	Minor Research Project	Algebra	UGC
Dr. Nabajyoti Das	Minor Research Project	Dynamical System	UGC
Dr. Lalit Ch. Rabha	Minor Research Project	Literature	CIIL, Mysore

3.1.6 Give details of workshops/ training programmes/sensitization programmes conducted/organised by the institution with focus on capacity building in terms of research and imbibing research culture among staff and students.

- In order to cultivate and accelerate the research culture among the faculty member, the college has been organizing seminars, workshops and other sensitizing programmes on different topics at an sporadic interval. Both teachers and student of the college could acquire new knowledge on different aspects and induced to pursue research culture among themselves. The following table shows the details of such organised programme in the college from the period of last NAAC visit-

Table 3 (b): Details of Workshops/ Training programmes/Sensitization programmes etc.

Year	Name of the Programme (Workshop/Training/Sensitization programme)	Organizing Department/ Body	Sponsored by
2007	Seminar on “Future Industrial prospects of Bamboo”, Mr. N. T. Naidu, Dy. Director, Ministry of Micro, Small & Medium Enterprises, Govt. of India and Dr. Ranjit Barman, Sr. Scientist, ASTEC.	J.N. College Science Forum	ASTEC
2008	Popular Talks on “Discovery of New Particle” delivered by Prof. Dilip Kr. Chowdhury, Renowned Scientist of Gauhati University.	J.N. College Science Forum	Self
2008	UGC Sponsored National Seminar on “Wetland and Livelihood”	College	UGC
2008	National Children Science Congress	J.N. College Science Forum	ASTEC
2011	Popular Talk on “Conservation Biology in the 21 st Century: Global Partnership in Research, Training and Outreach” delivered by Prof. Randall C. Kyes of University of Washington USA	Zoology	College
2011	Lecture on “Japanese Nature, Society and Disaster” delivered by Prof. Haruhisa Asada of Kyoto University, Japan	Geography	College
2011	“Traditional household practices among the women folk of Boko Area”.	Tribal Study Centre	College
2011	Short Term Training on Biological Instrumentation”	Biotech Hub	DBT
2011	Workshop on “Capacity Building of Science Teachers’ at Secondary Level.”		
2012	National Seminar on Literature, Culture and Philosophy of Sankardeva on 30 th November, 2011.	Department of Assamese	Self

3.1.7 Provide details of prioritized research areas and the expenditure available with the institution?

- The institute is not a research body as such no such provision of priority research is in practice. However some of the faculty members of the college pursue both major and minor research projects funded by different organization. So far the college has 15 no of faculty from both Science and Humanities background who pursued their research in different fields and has been carrying out major and minor research projects.

3.1.8. Enumerate the efforts of the institution in attending researchers of eminence to visit the campus and interact with teachers and student.

- In spite of limited facilities the college ventured to organized lecture programmes inviting eminent Professor, researchers and academic activists from different organization during the last few years.

Details of such programmes are mentioned below-

Table 3 (c) : Eminent Professor, Researchers and Academicians visit.

Date	Programme	Resource Person	From University/Organization
09.02.2011	Popular Talk on “Conservation Biology in the 21 st Century: Global Partnership in Research, Training and Outreach”	Prof. Randall C. Kyes	University of Washington USA
08.12.2011	Lecture on “Japanese Nature, Society and Disaster”	Prof. Haruhisa Asada	Kyoto University, Japan
30.11.2011	National Seminar on Literature, Culture and Philosophy of Sankardeva	Prof. Kishori Mohan Pathak.	Former Vice-Chancellor, Central University, Tezpur.
17.06.2012	Interactive Session with staff members	Prof. Madhukar	NAAC

3.1.9. What percentage of the faculty has Sabbatical Leave for research activities? How has the provision contributed to improve the quality and imbibe research culture on the campus?

- The number of teachers availed Sabbatical Leave for research is very few. Most of the teachers prefer to go for research on lien leave. Of course one teacher has gone for research on Sabbatical Leave under UGC CAS scheme.

3.1.10. Provide details of the initiatives taken up by the institution in creating awareness / advocating/ transfer of relative findings of research of the institution or elsewhere to students and community (lab to land)

- In spite of limited resource the college has organized several programmes towards the creation of awareness /advocating /transfer of findings of research.
- The College authority encourages the faculty members to participate in various Seminars, Workshops and Conferences etc. thereby contributing to the welfare of the students and community through disseminating their knowledge.
- The Bio –Tech Hub of the College conducted a short term training Programme on Biological Instrumentation for the faculty members including neighboring institution from 30th June to 2nd July, 2011 in order to develop understanding the principles of operations of Advance Biological Instruments.
- The Bio –Tech Hub of the College conducted a Workshop on “Capacity Building of Science Teachers’ at Secondary level” from 27th to 29th September, 2011.
- The faculty members of the college launched several outreach programmes at neighboring institution from time to time.
- For creating awareness of scientific temperament among the students, field visit including Advance Laboratories were conducted.
- Research papers of some faculty members were published in several National and International Referred Journals.

3.2. Resource Mobilization for Research:

3.2.1. What percentage of the total budget is earmarked for research? Give details of the major heads of expenditure, financial allocation and actual utilization.

- Since the college is not a research organization therefore there is no any provision of financial allocation towards the research related activities.
- Of course the college authority provides a nominal financial assistance to each department for seminar and research related activities.

3.2.2. Is there a provision in the institution to provide seed money to the faculty for research? If so specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

- Does not arise.

3.2.3. What are the financial provisions made available to support student research project by students?

- Though the institute does not have provision for financial assistance for student research project but the authority provides financial assistance for conducting field study for major course students where field report is necessary and also for environmental studies

3.2.4. How does the various departments/ Units/ Staff of the institution interact in undertaking interdisciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

- Does not arise.

3.2.5. How does the institution ensure optimal use of various equipments and research facilities of the institution by its staff and students?

- The Bio-Tech Hub with few Advance Instrumentation facilities was established in 2nd May, 2011 and both faculty members & science students avail the facility.
- The instruments procured from Major and the Minor Projects are also accessible for all.
- The departmental laboratories of science departments, departmental libraries, college libraries, Computer and internet facilities are allowed by the principal for optimal use by students, researcher and the faculty members.

3.2.6. Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If “Yes” give details.

- ❖ The Institution received special grants from both UGC and DBT.

Table 3 (d) : Special Grants received from different Agency

Funding Agency	Particulars of Grants	Year	Grants received (Rs)
UGC	Books and Equipments	2007	1,95,000/-
Govt. of Assam	Library Development	2008	4,98,250/-
UGC	Books and Equipments	2009	82,000/-
Govt. of Assam	Book Grants	2010	49,825/-
DBT	Biotech Hub	2010	19,00,000/-
UGC	Additional Grant	2011	22,10,581/-
UGC	Additional Grant	2012	24,79,000/-
DBT	Biotech Hub	2012	10,68,000/-

3.2.7. Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

Table 3 (e) : Details of Ongoing and Completed Research Projects

Nature of the Project	Duration Year From To	Title of the Project	Name of the Funding Agency	Total Grant		Total Grant Received till date
				Sanctioned	Received	
Minor Projects						
Dr. Dipankar Sarma.	2006-08	Determination of the Minimum Genus and Genera of Riemann Surfaces with A Class of Metacyclic Group as Group of Automorphism.	UGC	50,000/-	50,000/-	Completed
Dr. Rekha		Man Elephant Conflict : A case study in the Fringe				

Chetry	2008-10	Village of Gibbon Wild Life Sanctuary in Assam, India	UGC	50,000/-	50,000/-	Completed
Dr. Susanta Kumar Bhuyan	2008-10	Effect of <i>Clerodendron colebrookianum</i> Walp Glycoside on Hepatic Lipid Profile and Blood Magnesium level in Mice.	UGC	90,000/-	90,000/-	Completed
Dr. Ranjit Baishya	2008-10	Method of characterizations and solution of GLDAP evolution..... Structure function.	UGC	1,00,000/-	1,00,000/-	Completed
Dr. J. P. Sharma Baruah.	2008-10	Quality assessment of drinking water in the tribal area of Boko, Assam	UGC	75,000/-	75,000/-	Completed
Dr. Alok Das.	2008-10	The study on the flow behavior of Elastico Viscous fluids.	UGC	40,000/-	40,000/-	Completed
Dr. Habibur Rahman	2009-11	Reassessment and Diversity of Rare and Endangered Rattan Species of Assam	UGC	1,40,000/-	1,40,000/-	Completed
Dr. Tapan Dutta.	2009-11	Ethnobotanical Studies on the Garo Tribes of Assam with Special reference to Wild edible plants.	UGC	1,50,000/-	1,50,000/-	Completed
Mr. Abani Kumar Das	2011-13	Processes of Deforestation and its Environmental Impact in the Foothill Zone of South Kamrup.	UGC	1,25,000/-	1,25,000/-	Completed
Dr. Kamaleswar Thakuria	2011	Ciyagit: Eti Alochana	UGC	50,000/-	50,000/-	Ongoing
Dr. Susanta Kumar Bhuyan	2012	A Study on Habitat Ecology and Diversity of Freshwater Turtle of Chandubi Beel.	UGC	1,00,000/-	-	On going
Major Projects						
Dr. Ranjit Baishya	2007-11	Studies on Hadron Structure Functions by Unique Solution of Evolution Equations	DAE BRNS	6,71,250/-	6,71,250/-	Completed
Dr. Tapan Kr. Deka	2007-11	Conservation of threatened Mahaseer in the Jia Bhorali, Assam.	UGC	7,00,600/-	7,00,600/-	Completed
Dr. Rekha Chetry	2009-12	Assessment of Socioeconomic status of fringe villages around Chakrasila wild life Sanctuary, Assam.	ICSSR	4,28,925/-	4,28,925/-	Completed
Dr. Tapan Kr. Deka	2009-12	Bio – pesticidal controls of red Spider mit (<i>Oligonychus coffeae nitetmer</i>) a Major pest of Tea.	DST	17,25,600/-	10,93,100/-	
Inter Disciplinary Projects.	-	-	-	-	-	-
Industry Sponsored	-	-	-	-	-	-

Students' Research Project	-	-	-	-	-	-
Any Other (Specify)	-	-	-	-	-	-

3.3 Research Facilities

3.3.1. What are the research facilities available to the students and research Scholars within the Campus?

- ❖ This Institution is not a research organization, yet the Institution has limited research facilities which includes- Bio-Tech Hub, GIS Laboratory, Weather Station, Departmental laboratories, Central Library, Departmental Libraries, Network Resource Centre and Instruments procured from various Research Projects.

3.3.2. What are the Institutional strategies for planning upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

- ❖ The Institution has a plan to enhance the instrumentation facility through various Research projects from different agency to meet the needs of researchers.

3.3.3. Has the Institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments/ facilities created during the last four years.

- ❖ The Institution received special grants from UGC, DBT, DAE and ICSSR. The financial assistance for procuring Instruments from agencies and Research Projects during last four years are given below-

Table 3 (f) : List of Instruments of Biotech Hub with financial assistance from DBT.

Sl. No.	Instruments	Quantity	Agency
1.	Vertical SLABGEL Electrophoresis apparatus , Model: GEL-02-02(ZENITH)	01	DBT
2.	All glass Double Distillation Unit(Ouartz Heater) Cat:3362-4.01, cap -4 ltr (BOROSIL)	01	
3.	Analytical Electronic Balance(Min display 0.1mg), BEL's	01	
4.	Vertical Laminar Air Flow Cabinet(work space 3'x2'x2') Model no: LV-22 (MAC)	01	
5.	B.O.D Incubator , Model: LTI-4 (455x410x610 mm), (MAC)	01	
6.	Oven – Hot Air, Stain less steel chamber. Model:EL-02, (MAC)	01	
7.	Autoclave Portable, Model: PASW-20 (MAC)	01	
8.	Centrifuge Machine ,(REMI)	01	
9.	Inverted Trinocular Microscope with Digital Photomicrographic attachment (OLYMPUS)	01	
10.	Magnetic Stirrer, Model: MS-2(SAD), (MAC)	01	
11.	Muffle Furnaces, Delux (ZENITH)	01	
12.	Microprocessor controlled visible Spectrophotometer, Type-166 (SYSTRONIC)	01	
13.	Kjeldahl Distillation and Digestion combined Unit(Unit of 6 tests) Model: 151-C MKOW	01	
14.	Digital P ^H Meter , Model: MK VI(SYSTRONIC)	01	
15.	Hot Plate Round : Model: HPRS- 8 (MAC)	02	

16	Heating Mental (450 watt) Cap: 2 ltr(JSGW)	02	
17	Sterioscopic Binocular Microscope, Model: MS-TIL with light system(OLYMPUS)	01	
18	Soxhlet Extraction Unit(MKOW)	01	
19	Soil Testing kit(CRAFT)	01	
20	Micro slide cabinet(ZENITH)	01	
21	Fixed Volume Pipettes, 100,200, 1000 UL	03	
22	Thermostate Cntralled Waterbath (MAC)	01	
23	Computer (Desktop), HP	02	
24	Printer (Desjet), HP	01	
25	Air Conditioner (1.5 Ton), LG	02	
26	Micro-centrifuge (TARSONS)	01	
27	Submarine gel electrophoresis	01	
28	UV trans-illuminator	02	
29	All clear vaccum dessicator 8 ^{''} (TARSONS)	03	
30	Ice bucket (TARSONS)	02	
31	Quick freezer (TARSONS)	01	
32	Aspirator bottle 10 L (TARSONS)	02	
33	Spinix vortex shaker (TARSONS)	02	
34	Pipette accupipete, 0.2-20; 20-200 micro lt. (TARSONS)	01	
35	Refrigerator(Godrej)	01	
36	Vacuum cleaner (UREKA FORBES)	01	
37	Aquaguard (AquaSure, EUREKA FORBES)	01	

Table 3 (g) : List of Instruments of Physics Department

SI No.	Equipments	Quantity	Agency
1	Cathode Ray Oscilloscope dual trace (30 MHz)	02	UGC
2	Function Generator (0.1 Hz – 1 MHz)	02	
3	Spectrometer – circle 22.5 cm	01	
4	Digital Balance (Sistonc)	01	
5	Diffraction Grating (50X40 mm) Imported	02	
6	Polarimeter	01	
7	Traveling Microscope	01	
8	Newtons Ring Experiment Set	01	
9	Bi-prism Experiment Set	01	
10	Sodium Light Source with Transformer (Imported)	03	
11	Ne, Ar, He, Hydrogen, Mercury etc. Sources	06	
12	Induction Coil (Spark 100mm)	02	
13	DC Regulated power supply (30 Volt) 1 Amp	01	
14	Eliminator (0- 12 volt, 4 amp)	04	
15	G. M. Counter Set	01	
16	Photo Cell Characteristic apparatus	01	
17	Anderson Bridge Set	01	
18	Reading Telescope	02	
19	RF Oscillator (3 – 8 MHz)	02	
20	Capacitance Boxes (4 dial 0.001, 0.01, 0.1, 1)	02	
21	Stefan's Constant apparatus	01	
22	Platinum Resistance Thermometer Set	01	
23	Calendar and Barnes Apparatus	01	
24	Thermocouple Apparatus	01	
25	Linear Expansion Apparatus (Optical Lever)	01	
26	Searl's apparatus for Young Modulus	02	

27	Rigidity Modulus	02	
28	Bar and Kater's Pendulum	02	
Sl.No.	Equipments	Quantity	Agency
1	ELICO-LI 120, Digital pH Meters	1	UGC
2	ELICO-CM 180 Digital Conductivity Meter	1	
3	ELICO- LI 126 Ion analyzer	1	
4	ELICO- 1013 AB Digital M.P.apparatus	1	
5	Melting Point apparatus	2	
6	968/3, Heating Mantle	1	
7	968/4, Heating Mantle	1	
8	989, Hot Plate	1	
9	Rotary Val Evaporator	1	
10	Vacuum Pump	1	
11	PERFIT - 937/08 Chromatography Chamber	1	
	„ - 937/09 „ „	1	
	„ - 937/10 „ „	1	
12	915 Magnetic Stirrer without hot plate	1	
	916, „ „ with hot plate	1	
13	894, Polarimeter with Sodium lamp	1	
14	DAB -220 Digital Balance	1	
15	Rough Balance, (Common)	1	
16	3363, Mono Quarts Distillation Unit	1	
17	6550, 1000ml Borosil Kipps apparatus	1	

29	Melde's Apparatus	01	
30	Electronics Kits (Zeener Diod, Trangistor, IC, Bread Board, multimeters etc.)	01	

Table 3 (h) : List of Instruments of Chemistry Department

18	WASM-8 (TP) Mac made wrist action Shaking Machine with timer	1	
19	Diamond stop watch	1	
20	ELICO CL 220 Flame Photometer	1	

Table 3 (i): List of Instruments of Botany Department

Sl. No	Equipments	Quantity	Agency
1	Compound Microscope (Olympus) .	05	UGC
2	Simple Microscope (Olympus) .	03	
3	Photo electric Colorimeter(Systronics).	01	
4	Chromatography Chamber(20 x 12x 10) .	02	
5	PC based Research Microscope(Trinocular) Model – CH-20i –Tr.(Olympus).	01	
6	Single Pan Electric Balance	01	
7	REMI Revolutionary centrifuge .	01	
8	Stage Micrometer. ERMA, Japan	02	
9	Ocular Micrometer. ERMA Japan	02	
10	GPS GARMIN USA.	01	

Table 3 (j) : List of Instruments of Zoology Department

Sl. No.	Equipments	Quantity	Agency
1	Olympus Student Monocular Microscope Model HAS. .	3	UGC
2	Paraffin Bath, 6 hole (MKOW) .	1	
3	Voltage Stabilizer 1KVA(Vertex) .	1	
4	Binocular, Model: H20, Make: Bushnell .	1	
5	GPS Germin, Model GPS-72 .	1	
6	Craft Secci Disc I BSW 24 for Transparency of Water	1	
7	Slide Cabinet for Histological Slide.	1	
8	Macro, Rectangular Hot Plate, Model MSW421 .	1	
9	Yorco Microtome Knife, Model YSI136 for Microtome	1	
10	Systronics Microcontroller Visible Spectrophotometer Type 104 .	1	
11	LCD Projector(SHARP) with Screen .	1	
12	Micropipette Model: 7012 .	1	
13	TLC Chamber (Rectangular Jar) .	1	
14	Max/Min Thermometer (Zeal) .	1	

Table 3 (k) : List of Instruments of Anthropology Department

Sl. No.	Equipments	Quantity	Agency
1	Sliding Calliper	3	
2	Spreading 12aliper (Blunt end)	4	
3	Spreading 12aliper (Pointed end)	4	
4	B.P. measuring Machine (Mercury)	2	
5	Anrhopometer	1	
6	LCD projector Model PCLD-1(EA)	1	
7	Freeze (Godrej)	1	

Table 3 (l): List of Instruments of Geography Department

Sl. No	Equipments	Quantity	Agency
1	Super Map Desk Pro-6(Basic GIS+Spatial Analysis+3D Analysis+Network Analysis Functionalities) and super Map Express-6(Basic GIS)	1 SMD + 4SME	UGC
2	GPS Map 276 c	1	
3	National Precision Direct	1	
4	Digital Plani Meter	1	
5	National Drawing Board pre	20	
6	Wireless Auto Weather	1	
7	Binocular Ranging 10×50	1	
8	Tangent Climometer	1	
9	Pocket Stereoscope	1	
10	Telescopic Alided	1	
11	Prismatic Compass	1	
12	Pantograph 60cm	1	
13	Mineral set	30	
14	Rocea set	20	

Table 3 (m) : List of Instruments of Mathematics Department

Sl. No	Equipments	Quantity	Agency
1	Smart Power Online UPS for Computer Lab (Capacity:5KVA)	01	UGC

Table 3 (n) : List of Instruments of Education Department

Sl. No.	Equipments	Quantity	Agency
1	Memory Drum, Electrical, 4 variable speed	02	UGC
2	LCD Projector-SHARP, PCLD-1(EA)	01	
3	Human Maze learning Appt. With 6 digit digital error counter	01	
4	Mirror drawing Appt. With 6 digit digital error counter	02	
5	Tachistoscope Fall Door Type, Heavy	01	
6	Stop watch, 1/10 Second	01	

Table 3 (o) : List of Instruments of English Department

Sl.No	Name of the Equipment	Quantity	Agency
1	CLARITY SNETCLASS Language lab Platform for 1 Teacher and 30 student	01	UGC
2	Tense Buster Compilation Software	01	
3	Computer set with Head phone for language Lab	05	

Table 3 (p) : Instrument procured from Research Project:

Sl.No	Name of the faculty	Name of the Equipments	Quantity	Agency
1	Dr. Rekha Chetry	Digital Camera(Kodak – C1013)	01	UGC
		Laptop Computer (DELL INSPRION, N 4010)		ICSSR
2	Dr. S. K. Bhuyan	Centrifuge (REMI)	01	UGC
		Distillation Unit(JSGW)	01	
		Computer	01	
3	Dr. Tapan Dutta	Water Bath (MAC)	01	UGC
		Glass Desiccators (BOROSIL)	01	
4	Dr. Tapan Kr. Deka	Laminar Air Flow	01	
		Autoclave : Vertical Model YSI-402	01	
		Water Distillation Assembly,JSGW, NPL DESIGN	01	
		JSGW Make Hot Plate Size	01	
		Metzer Trinocular Inverted Microscope Model-VFM 9050	01	
		Shimadzu Japan Make Electronic Balance Capacity:120gm	01	
		REMI Make Magnetic Stirrer : Model C5ML	01	
		Vertex Voltage Stabilizer 2KVA	01	
		Digital Ph Meter with Electrode Type 335	01	

		Hot Air Oven Model YSI-431	01	
		Metzer Biomedical BOD Incubator Model MBE-4055	01	
		Digital Still Camera, SONY DSC-5600	01	
		Pentium IV Computer with Accessories'	01	
		AC		
18	Dr. Ranjit Baishya	Laptop	01	
		Printer	01	

3.3.4. What are the research facilities made available to the students and research scholars out side the campus/other research laboratories?

❖ Does not arise.

3.3.5. Provide details on the library/information resource centre or any other facilities available specifically for the researchers?

❖ Already mentioned in the point 3.3.1.

3.3.6. What are the collaborative research facilities develops/created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.

❖ Such collaborative research facilities are not available in the college.

3.4 Research, Publication and Awards.

3.4.1. Highlights the major research achievements of the staff and students in terms of

- ❖ Patents obtained and filed(Process and product)
- ❖ Original research contributing to product improvement
- ❖ Research studies or surveys benefitting the community or improving the services
- ❖ Research inputs contributing to new initiatives and social development.
 - The research paper published by the faculty members in both National and International Journals (Referred Journals) has significant contributions towards the first hand knowledge and information. Faculty member, published books and research papers, are considered to be the relevant references for higher studies.

3.4.2. Does the Institutes publish/ partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial Board, publication policies and whether such publication is listed in any international database?

❖ Nil.

3.4.3. Give details of publications by the faculty and students:

❖ Publication per faculty.

- ❖ No of papers published by faculty and students in peer reviewed journals(national and International)
- ❖ No of publications listed in International Database (for eg. Web of Science, Scopus Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO, host, etc.)
- ❖ Monographs
- ❖ Chapter in Books
- ❖ Books edited
- ❖ Books with ISBN/ISSN numbers with details of publishers
- ❖ Citation Index
- ❖ SNIP
- ❖ SJR
- ❖ Impact factor
- ❖ h- index

Table 3 (q): Details of Publications by the Faculty

Sl. No.	Publications by the faculty	Total No
1	International Journal	35
2	National Journal	28
3	Chapter in Books	12
4	Books Edited	01
5	Books with ISBN/ISSN No	02
6	Text Books	03
7	Books without ISBN/ISSN No	11

- ❖ Most of the research paper published in both National and International Journals are listed in Database and a few research papers have impact factor.

3.4.4. Provide details (if any) of

- ❖ Research awards received by the faculty
- ❖ Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally
- ❖ Incentives given to faculty for receiving state, national and international recognitions for research contribution.
 - Till now 16 No of Faculty members have been awarded Ph. D. Degree.
 - Till now 08 No of Faculty members have been awarded M. Phil Degree.

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

- The institute proposed to establish a relationship with the Rubber Industry in the near future, since the college has already started a collaborative programme with Central Rubber Board and planted rubber plant in the college campus.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

- The college has no any policy in this regard.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

- Some faculty members of the college are engaged in the “Induction Training for Newly recruited TET qualified Teachers ” organized by J. N. College Study center of K K Handique State Open University from 25th March to 8th April, 2013.
- Some faculty members of the college are engaged in the “Workshop for Primary Teachers pursuing Diploma in Elementary Education” (Under Sarba Siksa Abhijan, Assam) organized by the J. N. College Study center of K K Handique State Open University from-

- I. 23rd Dec., 2012 to 4th Jan., 2013.
- II. 3rd July to 14th July, 2013.
- III. 2nd July to 14th July, 2013

- Some faculty members of the college are engaged every year for Career Counselling through ICGC.

3.6.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

- During the last four years no revenue is generated through major consultancy services.

3.6.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: institution) and its use for institutional development?

- Nil.

3.6 Extension Activities and Institutional Social Responsibility (ISY)

3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

- The various efforts of the Institution in this regards are as follows-

- a. The Study center of K. K. Handique State Open University of this Institution has been contributing educating the people of this neighborhood, who can not afford higher education through the conventional system because of their various constraints.
- b. Distribution of 34 Number of Smokeless Chullah to the members of Jarapara Mahila Samiti by the J. N. College Science Forum on 11.11.2006.
- c. The ICGC of the College organized a programme for the Girl Students of our institution to motivate them towards the carrier in Air Hostage in collaboration with the Horizon Aviation Academy, Guwahati Centre on 5th May, 2009.
- d. The NSS, Rover/Ranger and different Cell/Units of the institution rendering various service for both students and community in the neighboring areas are-
 - Six NSS Volunteers Participated in the National Integration Camp (NIC) from 17th to 24th May, 2009 at Prajapita Brahma Kumari Education and Research Foundation, Gurgaon under the Ministry of Sports, Govt. of India.3
 - The Ranger Team conducted Health Awareness Programme among “Prochesta Women SHG” at Shakhati M.V. School on 08.07.2008.
 - Sixteen (16) Rangers rendered their services in the Youth Integration Cycle Rally with German Karma Riders on 18.08.2008.
 - The Ranger Team provided their Services in the National Seminar on “Wetland and Livelihood” at College premises on 24th and 25th Oct. 2008.
 - Five NSS Volunteers (three girls and two boys) participated in the “National Integration Camp-2009” from 17th to 24th May, 2009 at Prajapita Brahma Kumari Education and Research Foundation, Guwahati.
 - Engaging the NSS Volunteers on Campus cleaning of the college on 15th Sept. 2008.
 - Observation of the NSS Day on the 24th of September 2008.
 - Awareness programme on Earthquake among the NSS Volunteers to aware the People regarding preventive steps to be taken during the Earthquake on 24th September, 2009.
 - The Ranger Team organized public meeting on Protection of Public Property, campaign for literacy development and Population Education on 14th July, 2009 at Junior College, Boko among the Students of Local Schools and peoples of Jarapara Village.
 - The Ranger Team rendered service at Free Health Checkup Camp at J .N. College, Boko, organized by the IQAC and Women’s cell on 25.11.2009.
 - The Ranger Team Rendered services at the 11th All Assam Scouts and Guides Rally at Gitanagar High School from 13th to 17th Feb, 2010.
 - The Women’s Cell in Collaboration with IQAC of the college organized a “Free Health Check up Camp” on 25th November, 2009 for the college fraternity and neighboring Villagers. Doctors and the Paramedical Staff of Boko PHE made this Camp a successful one with their full support and their Cooperation.
 - The Women Cell Organized a “Yoga Training Camp” from 10th to 13th December 2010 at College premises for both Students and the people of the neighboring areas. Mr. Narakanta Adhikari was the Resource Person for the said events.
 - The NSS Unit Organized a Blood Donation Camp in Collaboration with 9th Sikhli Regiment of Indian Army on 12th Feb. 2011 at the College Premises. Few Army Jowans, Teachers’ and Students donated Blood in the said events.

- Six Rangers with Ranger Leader Mrs. Bijaya Deka participated in the State Level Rover/ Ranger Meet at samatapathar, Guwahati from 29th Oct. to 1st Nov. 2010. The team obtained 11 prizes in various events and Miss Jyotiprabha Adhikari stood as **Best Ranger** in the event.
- The Ranger Team rendered their valuable service as volunteers at “Swaviman Jatra” of Baba Ramdev on 7th Feb. 2011 at Gandhi Maidan, Boko.
- Five Rangers participated at “Witch Hunting Awareness camp” and rendered their service on 7th Aug. 2011 at Boko High School, organized by Sangrami Nari Sangha, Kamrup.
- The Ranger Team participated and rendered their valuable service in the 65th Independent Day Celebration at Gandhi Maidan, Boko.
- On 2nd October 2011, on the eve of “Gandhi Jayanti” The Ranger Team of the College along with Guide Team of Boko Girls High School conducted a cleanness drive in Jamuswery Mandir at Nagopara Village and Siv Mandir Premises of Jarapara Village in the morning half. In the afternoon an Awareness Campaign about Drinking Water and Family Welfare was also organized in the Siv Mandir Campus for the locality.
- The Ranger Team with Ranger Leader Mrs. Bijaya Deka rendered services in the Suwari Satabarsha Festival from 17th to 19th April 2012 at Boko Gandhi Maidam.
- Aryabhatta Science Centre distributed 28 no. Solar Lanterns to the Poor meritorious students of the localities on 9th Jan. 2012.
- The Biotech Hub organized few Outreach programme in time to time.
- The IQAC in collaboration with Boko Sports Association organized a Workshop on Free Football Training Camp for the Students of the College and Youth of the locality from 3rd July to 13th July, 2012

3.6.2 What is the institutional mechanism to track students’ involvement in various social movements/ activities which promote citizenship roles?

- Though the institution has no any specific mechanism to track students’ involvement in various social movements, every year the college administration arranges Election to the Students’ Union democratically to involve them in different activities concerning the welfare of the student community as well as introduce them to the democratic process. Being the member of the Students’ Union they acquire the skills of policy making, discipline maintenance, abiding rules and regulation and the courage to protest against all sorts of prejudice and injustice afflicting the society.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

- The institution solicits stakeholder perception on the overall performance and quality of the institution through participation in various events of the college viz- Foundation Day, Freshman Social, Guardian meeting, Seminar, Workshop, Festivals, Cultural events etc. Eminent persons/Social activists of the locality are generally included in various bodies like Governing Body, IQAC and Examination Committee etc.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

- Every year different Cell/Units of the college devise different plans and programmes in consultation with the Principal and IQAC. The major extension and Outreach programmes are listed in the following-

Table 3 (r) : Extension and Outreach programmes

Sl No.	Unit/Cell	Budget	Major Extension and Outreach programmes
1	Students' Union	1,04,000/-	<ul style="list-style-type: none"> • Participated in the Youth Festival of Gauhati University every year. • Participated in the Inter-college Sports & Cultural competition.
2	Biotech Hub	1,00,000/-	<ul style="list-style-type: none"> • Organized a three day long Workshop for School Teachers from 27th – 29th September, 2011 in order to create scientific temperament among the students. • Outreach programme at Singra High on 29th October, 2011. • Visit to IIT Guwahati (15 No. Students') to gather knowledge about emerging areas of Biotechnology on 10th January, 2012. • Hands on training on advanced laboratory equipments for students at undergraduate level from 19th – 21st March, 2013. • Workshop on Natural Dying of Eri Silk for Students and Local Community on 18th March, 2013. • Popularization of Science/Bioscience & Biotechnology at Jatiya Vidyalaya, Ranguli n 5th April, 2013. • Exposure visit (Undergraduate Student) to State Biotech Hub, Assam on 30th April, 2013. • Exposure visit (Undergraduate Student) to Centre of Plasma Physics, Sonapur, Assam on 2nd May, 2013.
3	NSS	1,07,630/-	<ul style="list-style-type: none"> • Engaging the NSS Volunteers on Campus cleaning of the college on 15th Sept. 2008. • Observation of the NSS Day on the 24th of Sept. 2008. • Five NSS Volunteers participated in the "National Integration Camp-2009" from 17th to 24th May, 2009 at Prajapita Brahma Kumari Education and Research Foundation, Guwahati. • Awareness programme on Earthquake among the NSS Volunteers to aware the People regarding preventive steps to be taken during the Earthquake on 24th September, 2009. • The NSS Unit Organized a Blood Donation Camp in Collaboration with 9th Sikhli Regiment of Indian Army on 12th Feb. 2011 at the College

			Premises. Few Army Jowans, Teachers' and Students donated Blood in the said events.
4	Rover/Ranger	67,630/-	<ul style="list-style-type: none"> • The Ranger Team conducted Health Awareness programme among “Prochesta Women SHG” at Shakhati M.V. School on 08.07.2008. • Sixteen Rangers rendered their services in the Youth Integration Cycle Rally with German Karma Riders on 18.08.2008. • The Ranger Team provided their Services in the National Seminar on “Wetland and Livelihood” at College premises on 24th and 25th Oct. 2008. • The Ranger Team organized public meeting on protection of public property/campaign for literacy development/ Population Education on 14th July, 2009 at Junior College, Boko among the Students of Local Schools and peoples of Jarapara Village. • The Ranger Team rendered service at Free Health checkup Camp at J .N. College, Boko, organized by the IQAC and Women’s cell. • The Ranger Team Rendered services at the 11th All Assam Scouts and Guides Rally at Gitanagar High School from 13th to 17th Feb, 2010. • Six Rangers with Ranger Leader Mrs. Bijaya Deka participated in the State Level Rover/ Ranger Meet at samatapathar, Guwahati from 29th Oct. to 1st Nov. 2010. The team obtained 11 prizes in various events and Miss Jyotiprabha Adhikari stood as Best Ranger in the event. • The Ranger Team rendered their valuable service as volunteers at “Swaviman Jatra” of Baba Ramdev on 7th Feb. 2011 at Gandhi Maidan, Boko. • Five Rangers participated at “Witch Hunting Awareness camp” and rendered their service on 7th Aug. 2011 at Boko High School, organized by sangrami Nari Sangha, Kamrup. • The Ranger Team participated and rendered their valuable service in the 65th Independent Day Celebration at Gandhi Maidan, Boko.

			<ul style="list-style-type: none"> On 2nd October 2011 on the eve of “Gandhi Jayanti” The Ranger Team of the College along with Guide Team of Boko Girls High School conducted a cleanness drive in Jamuswery Mandir at Nagopara Village and Siv Mandir Premises of Jarapara Village in the morning half. In the afternoon an Awareness Campaign about Drinking Water and Family Welfare was also organized in the Siv Mandir Campus for the locality. The Ranger Team with ranger Leader Mrs. Bijaya Deka rendered services in the Suwari Satabarsha Festival from 17th to 19th April 2012 at Boko Gandhi Maidam.
6	Aryabhata Science Centre, Boko.		<ul style="list-style-type: none"> Aryabhata Science Centre distributed 28 no. Solar Lanterns to the Poor meritorious students of the localities on 9th Jan. 2012.
			<ul style="list-style-type: none">

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

- The authority encourages the students and faculty members to participate in various extension activities through NSS, Rover/Ranger and different Cells/Unit
- (Details mentioned in 3.6.1).

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

- Though the Institution has not undertaken any social survey and Research but some extension works meant for the benefit of the weaker section of the society have been done. The Aryabhata Science Centre distributed 28 numbers of Solar Lanterns to the Poor meritorious students of the localities on 9th Jan. 2012. Since a considerable portion of the society is dependent on sericulture as a source of their livelihood, a day long workshop on Natural Dying of Eri Silk for Students and Local Community was conducted by Biotech Hub on 18th March, 2013.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students’ academic learning experience and specify the values and skills inculcated.

- The college authority encourages the students to participate in different extension activities conducted by NSS, Rover/Ranger, and different Cells/Unit of the college through which both students and the neighboring communities are benefited. It inculcates the habits of Service to the community and social responsibility and at the same time it helps them to become good citizens. These programmes definitely go a long way in character building of the students’. It plays a significant role in developing network between institution-neighborhood-community.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

- J. N. College Science Forum distributed 34 Nos. Smokeless Chullah to the beneficiaries of Jarapara Mahila samity
- The Ranger Team conducted Health Awareness programme among “Prochesta Women SHG” at Shakhati M.V. School on 08.07.2008.
- Awareness programme on Earthquake among the NSS Volunteers to aware the People regarding preventive steps to be taken during the Earthquake on 24th September, 2009.
- The Ranger Team organized public meeting on protection of public property/campaign for literacy development/ Population Education on 14th July, 2009 at Junior College, Boko among the Students of Local Schools and peoples of Jarapara Village.
- The Women’s Cell in Collaboration with IQAC of the college organized a “Free Health Check up Camp” on 25th November, 2009 for the college fraternity and neighboring Villagers. Doctors and the Paramedical Staff of Boko PHE made this Camp a successful one with their full support and their Cooperation.
- The Women Cell Organized a “Yoga Training Camp” from 10th to 13th December 2010 at College premises for both Students and the people of the neighboring areas. Mr. Narakanta Adhikari was the Resource Person for the said events.
- The NSS Unit Organized a Blood Donation Camp in Collaboration with 9th Sikhli Regiment of Indian Army on 12th Feb. 2011 at the College Premises. Few Army Jowans, Teachers’ and Students donated Blood in the said events.
- Five Rangers participated at “Witch Hunting Awareness camp” and rendered their service on 7th Aug. 2011 at Boko High School, organized by Sangrami Nari Sangha, Kamrup.
- On 2nd October 2011 The Ranger Team of the College along with Guide Team of Boko Girls High School conducted a cleanness drive in Jamuswery Mandir at Nagopara Village and Siv Mandir Premises of Jarapara Village in the morning half. In the afternoon an Awareness Campaign about Drinking Water and Family Welfare was also organized in the Siv Mandir Campus for the locality.
- Aryabhata Science Centre distributed 28 no. Solar Lanterns to the Poor meritorious students of the localities on 9th Jan. 2012.
- The IQAC in collaboration with Boko Sports Association organized a Workshop on Free Football Training Camp for the Students of the College and Youth of the locality from 3rd July to 13th July, 2012.
- Workshop on Natural Dying of Eri Silk for Students and Local Community on 18th March, 2013.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- The Institution has cordial relationship with neighboring educational institutions and already some of our faculty members visited most of the neighboring educational institutions and conducted various outreach programmes. Also Teachers and students from these institutions visited and participated in various Seminars, Workshops, Training courses etc. organized under the banner of J. N. College Science Forum, Biotech Hub and different Cells/Unit from time to time.

3.6.10 Give details of awards received by the institution for extension activities and/ contributions to the social/ community development during the last four years.

- Till date no such awards received by the institution in this field.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutions and industry for research activities. Cite examples and benefits accrued of the initiatives – collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

- The college has established a research linkage with Gauhati University. Under a Major Research Project (2009-2012) sponsored by DST, Govt. of India entitled “Bio-pesticidal controls of red Spider mit (*Oligonychus coffeaenitetner*) a Major pest of Tea”, Professor D. K. Jha of Department of Botany of Gauhati University is working as Co-investigator with Dr. Tapan Kumar Deka (PI) of this institution.

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/ other universities/ industries/ Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

- The College has signed a **MOA on 25th Feb. 2011** with Central Rubber Board with a view to develop a Commercial Nursery of Rubber Plant, Development of a Rubber Garden within College Campus (4.00 hector area) and awareness for feasibility of Rubber Cultivation in the area. Already the programme is implemented.

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/ creation/ up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/ library/ new technology/ placement services etc.

- The institution has received Financial Grants from DBT for setting up a Biotech Hub and installed few sophisticated instruments that enhanced the research facility.

3.7.4 Highlighting the names of eminent scientists/ participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

- Prof. Randall C Kyes of University of Washington, USA visited our institution and presented a Popular Talk on “Conservation Biology in the 21st Century: Global Partnership in Research, Training and Outreach” On 9th February, 2011.
- Prof. Haruhisa Asada, Kyoto University, Japan delivered a lecture on “Japanese Nature, Society and Disaster” on 8th December, 2011.
- Prof. Kishorimohan Pathak Former Vice-Chancellor, Central University, Tezpur delivered the Keynote Address in the National Seminar on “Literature, Culture and Philosophy of Sankardeva” on 30th November, 2011.

3.7.5 How many of the linkages/ collaborations have actually resulted in formal MoUS and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/ or facilitated-

- a) Curriculum development/ enrichment
- b) Internship/ On-the-job training
- c) Summer placement
- d) Faculty exchange and professional development
- e) Research
- f) Consultancy
- g) Extension
- h) Publication
- i) Student Placement
- j) Twinning programmes
- k) Introduction of new courses
- l) Student exchange
- m) Any other

- Only one collaboration with Central Rubber Board. The College has signed with Central Rubber Board a MOA on 25th Feb. 2011.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.

- After completion of 7 years Central Rubber Board will hand over the rubber garden to the college administration as per MOA and we have a plan to produce Rubber from this rubber garden in commercial basis as income generating source.

