

CENTRAL SERVICES

CENTRAL LIBRARY

Introduction : The Central Library is located in the centre of the academic block of the University amidst tall pines adding to the overall pleasing look. Flanked on both side by academic Departments, the library has the advantage of being reached from different points. The road from the main gate also directly leads to the Library and therefore can be easily located. During the year the Departmental Library of Life Sciences was shifted and relocated in the Central Library. Thus, with the exception of the Law Library, the entire collection of different Departments and Centres is now housed in the Library building.

The Library which is fully automated, operates on a full fledged client server architecture with LAN linking different sections of the Library. The Library automation includes day-to-day house keeping works in different sections of the library and also readers services. The following are projections during the year 2005-2006.

1. Library Collection :

- 1.1. **Book Collection:** Up to the month of March 2006, the library collection reached a target of 2,34,000 volumes. The entire book collection is now computerized and could be accessed through OPAC.
- 1.2. **Back Volume of Journals:** The total collection of back volumes and bound journals which is part of the total collection stands at 27,651 volumes. During the year, the work of data entry of this important collection has been started to facilitate information retrieval of required items by users.
- 1.3. **Special Collections:** To augment prompt service of important reading materials, the library has created following collections.
 - i) **Course Book Sections** - This collection contains all prescribed texts and heavily used books.
 - ii) **Local Collection** - It includes one copy each of books on North East. These are kept under close access to ensure availability at all times.
 - iii) **North East Collection** - All North East books irrespective of subjects are merged under this collection for easy location by users.
 - iv) **Thesis and Dissertations-** These are kept in periodical section and reflect the output of research work in the University. This collection is also now available in OPAC.

2. Services to the Readers:

- 2.1. **Issue of books:** The Library offers the normal services of issue and return in automated form.
- 2.2. **E-mail services:** Information of books processed during the year is emailed regularly to different Departments and Centres of the University.

- 2.3 **Reprography:** During the year the demand for reprography service was three times on the increase and a total of 68502 copies were provided to the users.
- 2.4 **Provision of E - journals:** During the year more than 4000 e-journals out of UGC Infonet were provided to different Departments of the University. It is gratified to note that within a span of less than one year, due to wide notification by the Library, NEHU occupies the 36th position among Universities in the usage of e-journals from UGC Infonet.
- 2.5. **Orientation Service to Freshers:** This service was provided by the Documentation Unit of the Library for newly admitted students. The services which in a more organised form includes lectures and guided tours of the NEHU Library. These pertain to use of OPAC, location of information, types of collection in the Library. The guided tours included location of different readers sections and their services.
- 2.6. **Consultation Facilities:** The Library also extended consultation facilities to visiting scholars/teachers on payment of nominal amount.
- 2.7. **Other Services:** In addition to above services, the Library is also disseminating information on important current issues through compilation/updating of bibliographies as follows:

Library Science Literature on/from NE India
 Insurgency in NE India
 Culture Studies
 Entrepreneurship/Indigenous Entrepreneurship
 HIV/AIDS
 Women's Studies/Women's Issues
 Child Abuse/Child Labour
 Human Rights
 Employment
 Reservation Issue

3 Professional and Academic Achievement.

- 3.1 **Extension of Library Hours :** During the year, the Library extended the library hours from 8 A.M. in the morning to 7 P.M. in the evening. This has the benefit to readers who want to use the library beyond the University working hours.
- 3.2 **Retrospective Conversion:** In addition to normal work, during the year, the Documentation Unit completed retrospective conversion of the government and institutional publications within its collection. A total of 8500 records are now available in the data base.
- 3.3. **Creation of thesis and dissertation data base:** A total of 2545 theses and dissertations were entered in the data base and are now available in OPAC.
- 3.4. **Training workshops for Para-professional of the State of Meghalaya.** A One Week Workshop was held from 25th to 30th June 2006 for Para Professionals. Altogether 25 untrained staff working in College Libraries and special Institutions attended the Training. This

also included participants from Garo Hills. All Officers and Senior Staff contributed in conducting the Training.

- 3.5. **Organization of One Day Workshop on the use and information from electronic data base:** In the month of March 2006 a One Day Workshop was organised for Science Departments in collaboration with Informatics India, one of the leading Firms in e-journals and electronic data base, to optimise information retrieval from electronic sources.
- 3.6. Mrs. I. Majaw, Librarian obtained her Ph.D from Khasi Department in October 2005 and Shri F. Sumer, Information Scientist qualified for M.Lib.Sc. from NEHU in 2005.
- 3.7. Dr. I. Majaw, Librarian was associated as resource person in a one week Workshop on Translation/Transcreation of Khasi Stories from the 14th to the 22nd November 2005 conducted by the Khasi Department.

Statistics at a glance

1. Total collection of books - 2,34,000
2. Total collection of bound journals - 27,651
3. No. of journals subscribed - 519 { 294 F - 225 I }
4. Books added during the year - 6490
5. Gifts & gratis received - 1063
6. Total number of registered borrowers - 3620
7. Average daily issue - 494
8. Consultation facilities - 305

LIBRARY (TURA)

The development of any academic institution can be visualized by the development of its Library within the Campus, and Tura Campus Library is an example of the same. It is rendering services not only to its faculty, staff, and students, but also catering the needs of the neighboring institutions of East, West and South Garo Hills. The Library has rich collection of academic and reference books and subscribing to number of learned Indian and foreign periodicals to supplement the reading. The Library is now under the process of computerization. The preparation of data base of entire Library collection had been completed by June 2004 and the Library holdings are available on OPAC

During 2005-2006 Campus Library registered a significant impact amidst the students and faculty and made progress in terms of collection development and library automation.

(1) Allocation for Books and journals (2005 - 2006 (Non - Plan) -

| | | |
|----------------------------|--------------|------------------------|
| | | Rs. 19.20 Lakhs |
| (a) Books (Non -Plan) | - 8.00 Lakhs | Rs. 19.20 Lakhs |
| (b) Furniture & Equipments | - 1.20 .. | |
| (c) Binding | - 1.00 .. | |
| (d) Journal (Non-Plan) | - 9.00 .. | |

(ii) Xth Plan

Rs. 8.00 Lakhs

Amount spent

Rs. 6.50 ..

Balance

Rs. 1.50 ..

2. Number of Journals Subscribed 156

| | | |
|----------------------|-------|-------|
| (a) Indian Journals | - 103 | } 156 |
| (b) Foreign Journals | - 53 | |

3. (i) Book Collection as on 31.3.2006 - 10126 Vols.

| | | |
|-------------------------------|--------|--------------|
| (a) Number of Books Purchased | - 9818 | } 10126 Vols |
| (b) Number of Books (Gifts) | - 308 | |

(ii) Books added during the year - 1038 Vols.

| | | |
|---------------|--------|-------------|
| (a) Purchased | - 1021 | } 1038 Vols |
| (b) Gifts | - 17 | |

4. Circulation Statistics : (Issue/Return of Books) - 135 per day

| | | |
|----------------------------|--------------|---------------|
| (a) Students | - 90 per day | } 135 per day |
| (b) Faculty & Staff Member | - 45 .. | |

5. Library Consultation Statistics - 210 per day

| | | |
|-------------------------|--------------|---------------|
| (a) Reference Materials | - 85 per day | } 210 per day |
| (b) Books/Journals | - 125 | |

6. Number of Registered Members - 218

| | | |
|-----------------------|-------|---------------|
| (a) Students | - 156 | } 218 Members |
| (b) Teacher | - 26 | |
| (c) Non Teaching | - 30 | |
| (d) Research Scholars | - 06 | |

7. Reprographic Services - 36000 Exposures during the year

8. Activities by Library Staff:-

- (i) First Phase of Library Automation Completed and Database ready.
- (ii) Barcoding Machine etc purchased and Barcoding in progress.
- (iii) Training to Staff for House Keeping Operations under Libsys-4 in Circulation Control, Acquisition, Technical Processing and Serial Control.

- (iv) Data base available on OPAC and demonstrated to faculty and students.
(v) All the four Teaching departments, PVC's Office and DR's Office is being connected to OPAC.

8. Achievements by Library Staff.

(a) (i) Training – 2 Library staff attended 2 days Hindi Rajbhasa Workshop at NEHU, Tura Campus on 14-15 March, 2006.

(ii) 2 Library staff attended the one day workshop on Research Methodology on 28th March Organised by NEICSSR and Department of Education, NEHU, Tura Campus, Tura.

(iii) Dr. A.K. Kundu, Deputy Librarian accompanied 21 Students of English, Garo and R.D.A.P for Study Tour to Trivandrum, Cochin, Coimbatore, Mysore and Bangalore and visited various Universities. The study tour was conducted between 24.1.2006 to 11.2.2006. Dr. A. K. Kundu was accompanied by Mrs Babitha Justin, Lecturer, English and Dr. Sunil Kumar.

COMPUTER CENTRE

The centre provides computation facility to faculty members, research scholars and students of the University, develops and maintains software for the University and conducts training programmes in computer related subjects.

Head : Dr. S.N.Rai

Staff :

| | |
|--------------------|---|
| Director | S.N.Rai, Ph.D. (BHU) |
| Sr. System Analyst | P.P.Dey, B.Tech. (R.E.C.Warangal) |
| Reader | T.K. Sinha, Ph.D. (NEHU) |
| Systems Analysts | B.Rynjah, B.Tech. (JNTU College of Engineering, Kakinada) S. Ghosh, M.E. (Jadavpur Engineering College) on Lien to Durgapur Institute of Advanced Technology & Management, Durgapur. |

Brief statement of activities during the year : Research scholars and teachers/ non -teachers from various departments / centres utilized the facilities of the centre for computational work, documentation and internet browsing.

The Centre conducted short term computer courses in Visual Basic Programming, Java Programming, Webpage Designing, Windows & MS-Office.

The Centre has been assisting Finance, Examination and Administration Departments of NEHU. Mr.P.P.Dey is maintaining the

software of the Finance Department. Three Data Entry Operators of the Centre were involved in the Examination Department's works.

The CIC, BCA and MCA computer courses of IGNOU were conducted at the centre during the weekends and some holidays throughout the year. Dr.T.K.Sinha supervised project works of three BCA students of IGNOU.

Seminars/Conferences :

Attended

Dr.S.N.Rai gave a talk on "Ab initio Calculation of Proton-Hydrocarbon Scattering Cross Sections" in the First Indo-US Workshop on Spectroscopy organised by Banaras Hindu University, India and Mississippi State University, USA at Varanasi during 9-11 January, 2006.

Publications :

Published abroad

Suzuki R., Rai S.N., Liebermann H.-P., Buenker R.J., Pichl L., and Kimura M., 2005, Elastic and inelastic processes in $H^+ + C_2H_6$ collisions below the 10-keV regime, *Phys. Rev. A* 72: 052710:1-10.

Chakravorty T. and Rai S.N., 2005, Depolarisation ratio and correlation between the relative intensity data and the abundance ratio of various isotopes of liquid carbon tetrachloride at room temperature, *Spectrochimica Acta* A62, 438-445.

Suzuki R., Rai S.N., Liebermann H.-P., Buenker R.J., Pichl L., and Kimura M., 2005, Charge Transfer processes by proton in collisions with C_2H_4 molecule below 10-keV, *RIKEN Accel. Prog. Rep.* 38: 82.

Rai-Constapel V., Liebermann H.-P., Buenker R.J., and Rai S.N., 2006, Ab Initio MRD-CI Study of the Spectrum of the TeO Molecule Employing Relativistic Effective Core Potentials, *J. Phys. Chem. A* 110: 404-411.

Other Activities :

The Centre generated a revenue of Rs. 98,775/= during the year. The Centre manages internet facility at Bijni Complex.

HEALTH CENTRE

NEHU Health Centre has two branches – one at Bijni Complex, Laitumkhrah, Shillong and the other at the Permanent Campus, Shillong catering to the health needs of teaching and non-teaching staff along with their dependents and the students.

The Health Centre has the following staff members at present :

Medical Officers (4)

Staff Nurses (3)

Pharmacist (1)

Pharmacist on contract basis (2)
Medical Attendant (1) Female
Laboratory Technician (1)
Laboratory Technician (1) on contract basis
Laboratory Assistant (1)
U.D.C. (2)
L.D.C. (2)
Peon (2)
Cleaners (3)
Safaiwala (1)

The following facilities are available :

CONSULTATION : Medical Officers are available for consultation at fixed hours and for emergency consultation outside duty hours.

PHARMACY : The required medicines are purchased "from wholesale suppliers and stocked at the Health Centre. These medicines are issued to the patients based on the prescription by the Doctors.

DRESSING ROOM : Dressing, injections and minor surgical procedures are carried out in the Dressing Room.

SPORTS : First Aid service is provided at sports meets and tournaments.

AMBULANCE : ambulance service is provided during emergency for transporting the severely ill patients from residence to Clinic/Hospital.

LABORATORY : Bio-chemical and Clinical pathology tests for blood and urine analysis have been started in the Health Centre.

IN-PATIENT TREATMENT : Patients requiring in-patient treatment are referred to the Hospitals within and outside Shillong depending upon the necessity.

CREDIT BILLING FACILITY : We have credit billing facility available for patients admitted in Nazareth and K.J.P. Hospitals in Shillong and C.M.C. Hospital at Vellore.

VOLUNTARY BLOOD DONORS : Health Centre maintains a list of Voluntary Blood Donors from among NEHU community and arranges for Blood Donors in case of emergency for the needy among NEHU community as well as community outside of NEHU.

PUBLICATIONS CELL

Tele-fax : 0364 2226316 / 2501902
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NEHU Publications was created with a view to promoting and undertaking publications in various areas and for different target groups. It has mainly concerned itself with the publication of University and undergraduate textbooks, general books, supplementary reading materials, reference books, research works particularly those relating to the North-East, Endowment Lectures delivered in the University and official publications like the University Calendar, the Annual Report, *NEHU News* and *The NEHU Journal*. NEHU Publications also publishes six higher-secondary textbooks as per a standing agreement with the Meghalaya Board of Higher Secondary School Education.

Apart from these, Publications is also functioning as the official printer of the University.

This is largely a self-financing unit and has developed out of a small investment made at the time of its establishment. The press for which there is a separate Press Revolving Fund is also largely self-financing. At present it has been undertaking almost all printing jobs emanating from the various departments and centres of the University. On the distribution front, besides opening a sale outlet at Tura Campus, it is also entering into contracts with major distributors in almost all university towns in the North-East and elsewhere in the country.

Printing, reprinting and publication of the following works were taken up during the period under report:

NEHU News: January-March, April-June, July-September, and October-December, 2005 issues.

The NEHU Journal, Vol. III, No.1 January 2005 and Vol. III, No. 2 July 2005 issues.

Seven books for the Centre for Distance Education

Phuit Ka Sabuit by S. J. Duncan

Elements of Political Science

Elements of Indian Constitution

NEHU Anthology of English Verse

NEHU Anthology of English Prose

A History of Modern World

Dr. Jekyll and Mr. Hyde by R. L. Stevenson

The Idiom of the Allegorical Mode: A Study of Six Novels by Esther Syiem

Lasubon '05: An East Zone Inter-University Youth Festival Souvenir

B. A. Syllabus

Thirty-first Annual Report

Prospectus and Admission forms for 2005-06

Printing items from various departments.

Fifteenth Convocation Programme, Address, etc.

Centre for Cultural and Creative Studies' Folder

Printing of Revised supplement for B.A and B.Sc. Syllabi

Printing of Calenders, Diaries and Engagement Pads

Sales during the year relating to these categories of books is as follows:

1. Textbooks – Rs 3, 01, 148.00
2. General Books – Rs 44, 007.00

SOPHISTICATED ANALYTICAL INSTRUMENTATION FACILITY (SAIF)

Telephone Number: 91 364 2227283, 91 364 2505685

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E-mail : bmyrboh@nehu.ac.in

Thurst Area of Research : The Centre provides analytical services, conducts training / workshops and also offers limited repair and maintenance services in computerized instrumentation and compressor based system.

Head : Professor B. Myrboh

Scientific Staff :

- Professor : R.P. Bajpai, M.Sc.(AMU), Ph.D.(Glasgow) (Temp. Attached)
S.S.O : Taposh Chakraborty, Ph. D (NEHU)
S.O : Sudip Dey, Ph. D (NEHU)
Begonia Dkhar, M. Sc (NEHU)
Debashish Dey, Ph.D (Rani Durgabati University, Jabalpur)
P. S. Dkhar, Ph. D (NEHU)

Seminars/Conferences/symposia/extension programmes etc :

Organised

- (i) National school on NMR, in collaboration with IISc Bangalore from 23rd May 2005 to 3rd June 2005.
- (ii) National Seminar on emerging trends in Chemistry (NSETC-2005) in collaboration with Department of Chemistry, North Eastern Hill University on 18th May 2005.
- (iii) Short term Course / Workshop on Atomic absorption Spectroscopy for scientists of North East India from 7th December to 9th December, 2005.

Publications:

Published in India

Nongkhlaw, R.L., Nongrum, R., Nongkynrih, I., Vattakunnel, F.M. and Myrboh, B. 2005. Novel synthesis of substituted cyclopropane acetic acid ethyl esters from cyclopropyl alkyl ketones. Indian Journal of Chemistry. 44B: 1054 -1057.

Dey, S., Sinha, B. and Kalita, J. 2005. Effect of Eupatorium adenophorum Spreng leaf extracts on the mustard aphid, Lipaphis erysimi. Kalt: A Scanning Electron Microscope study. Microsc: Res Tech. 66: 31 – 36.

Singh, S., Dey, S., Sharma, D.K. and Varman, A.R. 2005. A unique sheathed sensilla on the abdominal surface of the muga silkworm, *Antheraea assamensis* (Lepidoptera: Saturniidae). *Sericologia*. 45 : 427-440.

Published abroad

Chakraborty, T. and Rai, S.N. 2005. Depolarization ratio and correlation between the relative intensity data and abundance ratio of various isotopes of liquid carbon tetrachloride at room temperature. *Spectrochimica Acta Part A* 62 : 438-445.

Funds Received From Agencies other than NEHU :

From Department of Science & Technology, New Delhi

Non Plan : Rs. 11,00,000.00

Plan : Rs. 20,97,000.00

Infra structure facilities : The Sophisticated Analytical facility, has the following facilities :

- i. Scanning Electron Microscope; (a) JEOL JSM 6360 (b) JEOL JSM 35CF
- ii. Transmission Electron Microscope JEOL JSM 100CX
- iii. FT-NMR, Bruker ACF – 300
- iv. Microscope with Image Analyser, LEICA
- v. CW NMR, Varian EM – 390 (90MHz)
- vi. Atomic Absorption Spectrometer, PE 3110
- vii. Graphite Furnace, AAS6 Vario EA
- viii. CHNOS Analyser, PE 2400
- ix. FT-IR, BOMEM DA – 8.02
- x. ICP – AES, Labtam 8440M
- xi. UV-VIS-NIR Spectrometer, Varian CARY – 2390
- xii. Liquid Nitrogen Plant, Philips PLN 106.
- xiii. Liquid Chromatograph-Mass (LC-MS) Spectrometer, Model: ZQ – 4000.

Research Projects :

Ongoing

“A Lab to Land Programme on Application of Structural Biological Studies to Non-Mulberry Silk Industry in Relation to Increased Silk Out-put”. (Principal Investigator : Dr. Sudip Dey) sponsored by Govt. of India, Department of Development of Northeastern Region. Northeastern Council Secretariat, Shillong-793001.

Project Cost: Rs.10.02 Laks

“Pollutant in common edibles with reference to human health in urban Meghalaya”. (Principal Investigator : Dr. Sudip Dey) sponsored by Ministry of Environment and Forest, Govt. of India, Paryavaran Bhawan, New Delhi.

Project Cost: Rs.10.50 Laks

Other activities :

- (i) Dr. Sudip Dey delivered a talk on "Ultra structural approach to Conservation Biology" in Department of Zoology, G.C.College, Silchar, December, 2005.
- (ii) Dr. Sudip Dey delivered a talk on 'Application of Electron Microscopy in life Sciences Life' in the Department of Life Sciences, Assam University, Silchar on February, 2006.
- (iii) Mrs. Sarah M. Kharbuli working under the joint supervision of Dr. Sudip Dey, SAIF, and Prof. U.C.Goswami, Department of Zoology, Guwahati University was awarded Ph.D. degree by Guwahati University for her theses entitled "Ultra-structural and Ecological studies on the Hill stream fish, Danio aequipinnatus in relation to induced breeding and conservation." In the year 2005.
- (iv) Dr. Sudip Dey was nominated as one of the Subject Experts for sponsored seminar on "Biodiversity and Conservation of Ornamental fish of North East India" held at DHSK College, Dibrugarh, in 2006.

UNIVERSITY SCIENCE INSTRUMENTATION CENTRE

Head : Professor P. V. Koparkar

Telephone : 0364 – 2721161 (O), 0364 – 2551335 (R)

E-mail : usicnehu@sancharnet.in
chimanee@sancharnet.in

Thrust Area of research : The main thrust area of research is related to Instrumentation and allied fields.

Brief statement of Academic activities : Organized in-house training programmes

Faculty :

Professor : P. V. Koparkar, M.Sc./PhD.(Nagpur)
Technical Officers/Lecturers : S. De, M.Sc.(Gau.) M.Tech (Tezpur)
Frieda Cajee B.E./P.G. Diploma (Gau.)

Courses conducted : Two months hands on training in "Computer and Peripherals repair & Maintenance for USIC staff" from June 5th to August 5th 2005.

Seminars/ Symposia/Conference etc :

Organized

One day Seminar was organized on 25th September 2005 on "Emerging Trends in Instrumentation" for the technical staff and Scholars of the University.

Funds received from agencies other than NEHU : :Rs.5,70,000.00 (against 11.41 lakhs sanctioned) from DST, New Delhi , towards a research project entitled "Design and fabrication of high resolution, laser based three axis computerised seismometer" of Prof. P.V.Koparkar

Infrastructure facilities : During the current year One Class room and two rooms were constructed within the USIC building for Technical Officers & for establishing PC repairs & maintenance Lab.

Research Projects

New

Design and Fabrication of high resolution, laser based three axis computerised seismometer.

Other activity : Repair, Maintenance and fabrication work done:

Electrical/Electronics Section : Repair of Orbital Shaker (1 no) of Botany Department, Heating Mantle(27 nos), Melting Point Apparatus (1 no), Magnetic stirrer (9 nos) , Electric burner (1 no), Hot Plate (1 no), Electric motor (2 nos) for Chemistry Department.

Mechanical Section : Repair of Grass cutting Talwar (12 nos) and Hedge cutters (2 nos) for Estate; Vaccum Pump (1 no) of Chemistry Department, Weighing Machine(1 no) for Anthropology Department. Fabrication of Iron frame for Air Curtain (2 nos) for Bio-Chemistry Department, Outlet coupling for Vaccum pump (3 nos) for Chemistry Department. Iron Hammer and Step Shaft (1 each) for USIC, Grass cutting Talwar with wooden handle (5 nos) for Estate section. Boaring of bushings (4 nos) of Bosco Barefoot College, Assam.

Glass Blowing Section : Fabrication of Glass tubes(49 nos), Glass funnel(24 nos), Crystal growing tubes (104 nos) for Chemistry Department; Glass rings (100 nos) for Zoology Department. Repair of Distillation flask(1 no) of Bio-chemistry Department, Glassware of Water filter pump (2 nos) & condenser (1 no) of Chemistry Department, Measuring Cylinder (1 no) of Zoology Department.

Refrigeration Section : Repair of Refrigerators (2nos) of Botany Department, (1no) of Bio-Chemistry Department. One Air-conditioner of Regional Centre for National Afforestation & Eco Development Board.

PC Repairs &Maintenance Section : This is a new activity started recently by the Centre. After the training programme, slowly the Centre's staff has started doing repairs and maintenance of the PC, UPS, Printers. The following computers and related peripherals were repaired during 2005-2006 session.

1. One P4 Computer from A.R.(P & S)
2. One P4 Computer and Monitor and UPS from AR(Maintenance)
3. Dot Matrix Printer and Zenith PC of USIC.
4. Two EX 330 Dot Matrix Printers of CRC and Estt.I
5. AC Servo Stabilizer of Department of Botany,

6. Monitor attached to Gel DOC of Department of Botany,
7. Six Computers and one APC UPS of Department of Political Science
8. The following Computers and peripherals of Regional Centre of National Afforestation & Ecodevelopment Board, NEHU were also repaired.

i) Wipro Genius 486 based Computer ii) Dot Matrix FX105 Printer iii) One Microtek Monitor iv) One GVC FAX Modem, v) One Odessey EX Modem, vi) PPS-1000 Inverter, vii) One CVT – Model CVM-2000.

Carpentry Section: Fabrication of furniture was carried out for the different Departments, Centers, Sections of the University and University staff quarters as per the specifications furnished.