

1. Objectives of the Course

a) General Objectives

- 1) To train the student to assist the Eye Specialist
- 2) To acquire certain techniques to carry out early detection of visual defects.
- 3) To train the student in Power checking, Ophthalmic Lens Grinding, Manufacturing Units, etc.,

b) Specific Objectives

- 1) The student is trained to get the Knowledge of morphology of EYE, errors of refraction and common EYE Diseases.
- 2) The student must know the knowledge of Lenses, Ophthalmic blanks, Frames etc.
- 3) To train the student in fitting and checking of prescribed glasses according to power.
- 4) To prepare the student to conduct Ophthalmic Survey in community
- 5) To make the student to participate in Health Education Programmes for prevention of Eye diseases and early Detection.

2. Skills to be provided to Students

- 1) Test Errors of Refraction, Visual Defects
- 2) Handle the Equipment carefully
- 3) Sterilization of Equipment
- 4) Arranging Instruments for Operation
- 5) Dressing and Medication
- 6) Maintenance of Records
- 7) Checking of the Prescription
- 8) Identify and verify Power of Glasses

3. JOB OPPORTUNITIES - SELF/WAGE EMPLOYMENT

- 1) Ophthalmic Technician - Can work at all Levels in the National Programme for control of Blindness.
- 2) Assistant to EYE Specialist in Private Set-up.
- 3) To appoint as Refraction Assistant.
- 4) To appoint as Instructor in Practical Course at +2 stage.
- 5) Supervisor in Ophthalmic Glass, Grinding Workshop.
- 6) To set up Ophthalmic Glass Fitter shop.
- 7) To Fabricate Ophthalmic Trial sets.
- 8) To handle the sale of Ophthalmic Equipment

Financial Assessment

- 1) PMRY - Priminister Jowahar Yagana Scheme for Youth
- 2) CMYE - Chief Minister Youth Employment
- 3) ADHARANA
- 4) SETWIN
- 5) Other FINANCIAL Institutions
- 6) Scheme

4. ANNUAL SCHEME OF INSTRUCTION AND EXAMINATION FOR VOCATIONAL COURSES 1ST & 2ND YEAR

Part - A	Theory		Practicals		Total	
	Periods	Marks	Periods	Marks	Periods	Marks
1. English	185	75	-	-	185	75
2. GFC	185	75	-	-	185	75
Part - B						
3. Vocational Subjects						
Paper - I	160	50	160	50	320	100
Paper - II	160	50	160	50	320	100
Paper - III	160	50	160	50	320	100
Part - C						
4. On the Job Training -	-	-	210	50	210	50
Total	840	300	690	200	1540	500

Scheme of Instruction per week for Vocational Courses

Part - A	Theory	Practicals	Total
1. Communication Skills/English	6	-	6
2. G.F.C.	4	2	6
Part - B			
3. Vocational subjects			
Paper - I	5	5	10
Paper - II	5	5	10
Paper - III	5	5	10

New Scheme Proposed
Calculation of working periods

Number of working days per annum	=	220 days
Number of periods per annum 220×7	=	1540 periods
Periods allotted for OJT [30 days 30×7]	=	210 periods
Periods allotted to Communication Skills/ English	=	185 periods
Periods allotted to GFC [125 Theory + 60 Practicals]	=	185 periods
Periods allotted to Vocational subjects		
Paper I [Theory 160 + Practicals 160]	=	320 periods
Paper II [Theory 160 + Practicals 160]	=	320 periods
Paper III [Theory 160 + Practicals 160]	=	320 periods
Total		1540 periods

Periods allotted per week

1. Communication skills/English	=	6 periods
2. G.F.C. [Theory 4 = Practicals]	=	6 periods
3. Vocational Subjects		
Paper I [Theory 5 + Practicals 5]	=	10 periods
Paper II [Theory 5 + Practicals 5]	=	10 periods
Paper III [Theory 5 + Practicals 5]	=	10 periods
Total Periods per week	=	42 periods

5. OPHTHALMIC TECHNICIAN SYLLABUS

I Year

Part-A

1. Communication Skills in English
2. General Foundation Course

Part-B

3. Vocational Subjects

Paper -1 : Anatomy, Physiology, Pharmacology and Pathology

Paper - II : Physical & Physiological aspects of Spectacles (Optics)

Paper- III: Community Ophthalmology and Health Education

Part-C

4. On the Job Training

II Year

Part-A

1. Communication Skills in English
2. General Foundation Course

Part-B

3. Vocational Subjects

Paper -1 : Special lens Grinding, dispensing of spectacles

Paper - II : Common ocular diseases, special investigations, operation theatre procedures

Paper - III: Refractive Errors, Maintenance of Equipment

Part-C

4. On the Job Training

FIRSTYEAR : OPHTHALMICTECHNICIAN COURSE
PAPER -1
ANATOMY, PHYSIOLOGY, PHARAMACOLOGY AND PATHOLOGY
(Marks 50)

1. Anatomy of the Eye — (50 Periods / 20 Marks)

- a) Lids
- b) Conjunctiva Cornea and Sclera
- c) Iris and Ciliary body
- d) Lens and Vitreous
- e) Retina and Choroid
- f) Ocular Muscles
- g) Cranial Nerves - II, III, VI and VIIth
- h) Lacrimal Apparatus
- i) Orbit and its immediate relations

2. Physiology — (50 Periods / 20 Marks)

- a) General Physiology of the Eye and Introduction
- b) Cornea and Lens
- c) Pupillary Reflexes
- d) Visual Acuity and form Sense
- e) Night Vision
- f) Colour Vision
- g) Accommodation
- h) Convergence
- i) Production
- j) Aqueous dynamics (Intra Ocular Pressure)
- k) Visual Fields
- l) Extrinsic Muscles, Actions and ocular Movements

3. Ocular Pharmacology and Pathology

— (30 + 30 Periods, 5 + 5 Marks)

a) Mode of therapy Eg. Drops, Oral, Injection etc.

b) Commonly used Drugs in Ophthalmology

- 1) Antibiotics
- 2) Anti-Inflammatory
- 3) Anti-Allergic
- 4) Mydriatics & Miotics
- 5) Anaesthetics
- 6) Antiseptics
- 7) Methodology of Applying Medication to the Eye
- 8) Aseptic Techniques
- 9) Urine Examination
 - 1) Albumin
 - 2) Sugar
 - 3) Deposits
- 10) General Information on
 - a) Infection
 - b) Inflammation
 - c) Hypersensitivity
 - d) BP and Diabetics

FIRSTYEAR: OPHTHALMICTECHNICIAN COURSE

PRACTICAL PAPER -1

(Hours: Marks: 50)

ANATOMY, PHYSIOLOGY, PHARMACOLOGY AND PATHOLOGY

(Marks: Internal - 20, External - 30)

30 Marks - Practicals / Questions

10 Marks-Record

10 Marks-Viva

- 1) Drawing of different parts of the Eye
- 2) Recording of Distance Vision, near Vision, Colour Vision
- 3) Eliciting of Pupillary Reflexes
- 4) Intra ocular Pressure Recording
- 5) Visual Fields Recording
- 6) Lacrimal Test
- 7) Uses of Mydratics
- 8) Anaesthetics
- 9) Methodology of Applying Medications

FIRSTYEAR: OPHTHALMICTECHNICIAN COURSE

(Hours: , Marks : 50)

THEORY-PAPER II

PHYSICAL AND PHYSIOLOGICAL ASPECTS OF OPTICS

Elementary basics of light and vision — (30 Marks)

- 1) Principles of Refraction
- 2) Retinoscopy, Principles & Practice
- 3) Eye as refractive apparatus
- 4) Myopia and correction
- 5) Hypermetropia and its correction
- 6) Astigmatism and its correction
- 7) Presbyopia and its correction
- 8) Prescription of Glasses
- 9) Aphakia and Pseudophakia and its correction
- 10) Low Visual Aid

Optics —(20 Marks)

1. Ophthalmic Glasses
2. Physical forms and sizes and shapes (Spherical - Concave and Convex)
3. Astigmatic lenses (Cylindrical and Ptoric lenses)
4. Prisms and its uses
5. Prisamatic effect
6. Chemistry of lens
7. Optical Abberations
8. Chemisty of frames
9. Measurement of power (Lensometer and Geneua lens measure)
10. General Introduction of Contact lens

FIRSTYEAR: OPHTHALMICTECHNICIAN COURSE

PRACTICAL PAPER - II

(Hours: Marks: 50)

PHYSICAL AND PHYSIOLOGICAL ASPECTS OF OPTICS

(Marks: Internal - 20, External - 30)

30 Marks - Practicals / Questions

10 Marks-Record

10 Marks-Viva

1. Diagrams of refraction
2. Hypermetropia
3. myopia
4. Astigmatism
5. Aphakia
6. Prism
7. Reflection, refraction of light
8. Practical demonstratin of
 - a) Refraction through prism
 - b) Refraction through convex lens
 - c) Refraction through concave lens

FIRSTYEAR: OPHTHALMICTECHNICIAN COURSE

(Hours: , Marks : 50)

THEORY - PAPER III

COMMUNITY OPHTHALMOLOGY- HEALTH EDUCATION

- I. Examination of the Eye — (5 Marks)
- II. Practical Demonstrations of Eye Problems and their management and Referral — (10 Marks)
 - a) Conjunctivitis
 - b) Cataract
 - c) Glaucoma
 - d) Vitamin-A Deficiency
 - e) Injuries and Occupational hazards
 - f) Refractive Errors
 - g) Eye Donation
 - h) Certain terms
 - 1) Incidence
 - 2) prevalence
 - 3) Epidemics
 - 4) Enderics

III. Community Ophthalmology — (20 Marks)

- a) Screening and Survey of the School children
- b) Eye Screening of the Industrial workers
- c) Eye Camps
- d) Detection of the Blind and their Rehabilitation, and with note on preventable, permanent and reversible blindness and visually handicapped.
- e) Reading problems in children
- f) Statistical evaluation of the surveys

- g) Detection of Eye diseases due to Nutritional disorders
- h) Industrial hazards and protection to industrial Hazards
- i) Governmental and Non-Governmental agencies serving the community in the field of Ophthalmology.

IV. Health Education — (15 Marks)

- a) Blindness and Causes
- b) Nutrition
- c) Environmental Sanitation and water supply, sewage, disposal
- d) Specific Measures for
 - i) Injuries
 - ii) Xerosis
 - iii) Trachoma
 - iv) Conjunctivities
 - v) Cataract

FIRSTYEAR: OPHTHALMICTECHNICIAN COURSE

PRACTICAL-PAPER III

(Hours: , Marks: 50)

30 Marks - Practicals

10 Marks-Record

10 Marks-Viva

COMMUNITY OPHTHALMOLOGY AND HEALTH EDUCATION

1. Out Door work - Condinting Eye Camps
 - a) At Schools
 - b) Old Age Homes, Computer Institutes
 - c) Eye Camps
 - d) At Industries

I YEAR : ON THE JOB TRAINING

(Time : , Marks : 50)

Sites:

District Hospitals, Town hospitals, Medical College / Govt. / Private optical workshop or manufacturing ophthalmic lenses or glasses.

Syllabus:

Practice of Retinoscopy

Field of vision and testing of vision → Eye Hospital

Chipping

Cutting and fitting only on dummy glasses and different sizes and Blocking? grinding and surfacing (Finishing and polishing) Plain and simple powers.

Evaluation:

1. Observation by supervisor
2. Viva
3. Report submitted by student

SECONDYEAR: OPHTHALMICTECHNICIAN COURSE

THEORY PAPER-I

(Periods: ,Marks: 50)

SPECIAL LENS GRINDING, DISPENSING OF SPECTACLES

1. Special Lens Grinding — (25 Marks)

- a) Types of Lens
- b) Principles of Grinding
- c) Bifocal Grinding
- d) Cylindrical Grinding
- e) Prismatic Lens Grinding
- f) Aberrations and base Curves
- g) Aphakic Glasses j
- h) Ingredients of Material (Grinding Powder, Pads, Tools, Laps etc)

II. Dispensing of Spectacles — (25 Marks)

- a) Human Eye and Spectacles, Intrapupillary distance
- b) Bifocals and Multifocal requirements, types centering
- c) Protective Glasses
- d) Lens form and thickness effective, equivalent and Vertex powel
- e) Trial Lenses and Frames
- f) Frame types and specific indications
- g) Faces and related spectacles measurements
- h) Bi-focal fitting
- i) Cylindrical
- j) Measurement of spectacle lens, power and focimeter

SECONDYEAR: OPHTHALMICTECHNICIAN COURSE

PRACTICAL PAPER-I

(Period : , Marks: 50)

30 Marks - Practicals

10 Marks-Record

10 Marks-Viva

SPECIAL LENS GRINDING, DISPENSING OF SPECTACLES

1. Work-shop Practice

- a) Cutting and Fitting of Glasses
- b) Grinding - i) Finishing
ii) Polishing

2. Dispensing Spectacles (Opticals)

SECONDYEAR: OPHTHLMICTECHNICIAN COURSE

(Periods: , Marks: 50)

THEORY PAPER II

**COMMON OCULAR DISEASES, SPECIAL INVESTIGATION AND
OPERATIONTHEATRE PROCEDURE**

1. Introduction to common EYE Diseases

(Symptoms and Detection)—(30 Marks)

- a) Conjunctivitis
- b) Lid infection
- c) Styes
- d) Sub-Conjunctival Haemorrhage
- e) Eye-Allergy
- f) Corneal Ulcer
- g) Cataract
- h) Glaucoma
- i) Vitamin-A Deficiency
- j) Injuries
- k) Post operative complications of Cataract Surgery

2. Routine Investigations — (10 Marks)

- a) Cong. Swab and smear taking for cytology and collection
- b) Tension taking (Tonometer)
- c) Colour Vision
- d) Visual fields
- e) Various instrument and their principles
- f) Fluorescence staining and techniques
- g) Lacrymal test
- h) Urine- 1) Albumin
 2) Sugar

III. Operation Theatre Procedure — (10 Marks)

O.T.Minor Surgery (Introduction to Techniques and Preparation of the patient)

- a) Asepsis - How to achieve and sterilisation
- b) Anaesthetic agents and where indicated
- c) Carrying out Pre-Operative and Post Operative Instructions
- d) Epilation
- e) Bandaging the Eye
- f) Syringing

SECONDYEAR : OPHTHLMICTECHNICIAN COURSE

(Periods: , Marks: 50)

(Marks: Internal 20, External: 30)

PRACTICAL PAPER II

30 Marks - Practicals

10 Marks-Record

10 Marks-Viva

**COMMON OCULAR DISEASES, SPECIAL INVESTIGATION AND
OPERATION THEATRE PROCEDURE**

I. Common Eye Diseases - Detection and Management

- a) Conjunctivitis
- b) Lid infection
- c) Styes
- d) Sub-Conjunctival Haemorrhage
- e) Eye-Allergy
- f) Corneal Ulcer
- g) Cataract
- h) Glaucoma
- i) Injuries
- j) Practice of Refractive Errors
- k) Dacrocystitis

II. Swab Smears and Cultures

SECONDYEAR: OPHTHLMICTECHNICIAN COURSE

THEORY PAPER III

(Periods: .Marks: 50)

REFRACTIVE ERRORS - MAINTENANCE OF EQUIPMENTS

I. Refractive Errors—(30 Marks)

- 1) Symptomatology and Management of Hypermetropia
- 2) Symptomatology and Management of Myopia
- 3) Symptomatology and Management of Astigmatism
- 4) Presbyopia
- 5) Aphakia
- 6) Squint
- 7) Contact lens : Precrption and Practice

II. Explanation and Maintenance of Equipment — (10 Marks)

- a) Trial Set
- b) Torches
- c) Ophthalmoscope
- d) Slitlamps
- e) Keratometers
- f) Surgical Instruments
- g) Focimeter (unsometer)

III. Special Investigations — (5 Marks)

- 1) Visual Acuity Charting
 - a) Distant
 - b) Near
 - c) With Pin Hole
 - d) Colour Vis ion

IV. Maintenance of Medical Records and Statiscales — (5 Marks)

SECONDYEAR: OPHTHLMICTECHNICIAN COURSE

(Periods: , Marks: 50)

(Marks: Internal 20, External: 30)

PRACTICAL PAPER III

30 Marks - Practicals

10 Marks-Record

10 Marks-Viva

REFRACTIVE ERRORS - MAINTENANCE OF EQUIPMENTS

I. Estimation of Refractive Errors

- a) Symptomatology and Management of Hypermetropia
- b) Symptomatology and Management of Myopia
- c) Symptomatology and Management of Astigmatism
- d) Symptomatology and Management of Squint

II. Presbyopia

III. Aphakia

IV. Contact Lens - Prescription and Practice

V. Maintenance of Equipments

VI. Maintenance of Medical Records and Statisticals

VII. Practice of Retinoscopy

VIII. Prescription of Glasses

II Year

On the Job Training

(Time : , Marks : 50)

Sites :

Disatrick Hospitals, Town Hospitals, Medical Colleges Govt/Pvt.,
Optical Workshops or manufacturing Ophthalmic Lenses or Glasses

Syllabus:

1. Practice of Retinoscope
Field vision and taking of vision, testing
2. Chipping and cutting and fitting of all sorts of powered lenses into different shapes and sizes of frames
3. Transposition of lenses of simple and toric lenses
4. Grinding and surfacing of all high and low powered lenses including myopic, hypermetropic and mixed astigmatic, Laphakic and bifocal.

Evaluation:

1. Observation by supervisor
2. Viva
3. Report submitted by Student

6. SUITABLE LIST OF EQUIPMENT

1. Perimeter
2. Tonometer
3. Focimeters
4. Retinoscope
5. Trial Frame
6. Trial Sets

General Equipments

7. B.P. Apparatus
8. Stethoscope
9. Thermometer

Laboratory Equipments

10. Staining Set
11. Urine Testing Set
 - a) Boiling Test tubes
 - b) Test tube Holders
 - c) Spirit Lamps
 - d) Chemicals

Optical Work Shop - Practice

12. Spherical Grinding Machine
13. Cylindrical Grinding Machine
14. Spherical Tools (+10, -10, +6, -6, +3, -3, +2, -2 and +1, -1)
15. Cylindrical Tools (+3, -3, +2, -2, +1, -1)
16. General Gauges
17. Checking Gauges
18. General Lens Measure
19. 302, 303, Carborundum, CMER.
20. Barquindi 10Kg. each

21. Chipping Plaques
22. Edging Machines with motor and Diamond stone
23. Spherical lenses + 0.00 +12.00
24. Cylindrical lens +/-0.25 to 6, 6 base in 0.25 step
25. Spherical lens blocker CC & c x 50 mm/dia
26. Cylindrical lens blockers CC & 50 mm/dia.
27. Cylindrical Runners
28. Iron Pans (bowl type)
- 28a. (for melting tar) Gauges (brass) box
29. Spanners sets
30. Screwdriver (watchmakers) - sets
31. Electrical motor 1/2 HP single phase with rough grinding stone 6" fitted 15cm dia
32. Metal lens blocking kit along with aluminium and metal blockers
33. Emery powders Grade - 60
34. Emery powders Grade -120
35. Emery powders - Grade - MA2
36. Emery powders - Grade - MA3
37. Coal tar (Solid pieces)
38. Resin
39. Polishing powder Grade - A
40. Cerium oxide Grade - B
41. Polishing pads woollen felt cloth 10cm round
42. Miniscus 6 base lens blanks white
 - 60 x 3 mm
 - 60 x 5 mm
 - 60 x 6 mm
- 43.a) White flat blanks round 60 x 6 mm

- 43.b) White flat blanks round 60 x 8 mm
44. 6 Base bifocal kryptok assorted add + 75 to 300D. 60 x 5
45. Gum bottles 1 liter
46. Brown paper sheets large size
47. Porcelain hays 50m x 50 cm square
48. Stove with wicks and derosine
49. Kerosinetin
50. Trail boxes + 20 special 6cys. Metal reduced aperatuse lenses with accessories with tail frame
51. Opticianrulers
52. Axis marking chart (Metal)
53. Wooden stools
54. Wooden chairs
55. Steel table with 3 drawes decolem top
56. Edging and fitting equipment
57. Diamond glass cutter
58. Glass marking pencils
59. Plain window glass pieces 60 x 60 mm
60. Furniture
 - a) wooden table heavy type 1/2 feet X 5 x 1 1/2 table top
 - b) wooden table with drawers 3 feet X 4' tables
61. Wooden Spoon-6"
62. Frames
 - a) Metal frames different sizes and shapes
 - b) Steel frames different sizes and shapes

7. ON THE JOB TRAINING SITES

1. Sarojini Devi Eye Hospital - Hyderabad
2. Gandhi Eye Hospital - Secunderabad
3. Osmania General Eye Hospital - Hyderabad
4. Regional Eye Hospital - Warangal
5. Regional Eye Hospital - Kurnool
6. Regional Eye Hospital - Vishakapatnam
7. S.V. Medical College (Hospital) - Tirupathi
8. Ranga Raya Medical College (Hospital) - Kakinada
9. Guntur Medical College-Guntur
10. All Medical Colleges and District Head Quarters Hospitals
11. Health University - NTR - Vijayawada
12. All Lions Eye Hospitals - To be recognised by the Govt, of A.P.
13. Fully Equipped Private Ophthalmic Instructions - After taking - Recognition for Teaching Ophthalmic Technician
14. Manufacturing Units of Glasses, Frames
15. Private Sectors -
 - 1) All Optical Shops
 - 2) All Ophthalmic Nursing Homes and Hospitals
 - 3) All Ophthalmic Grinding Homes and Hospitals
 - 4) All Ophthalmic Grinding Workshops
 - 5) All works/shops which manufactures or sell optiaci instrument.

8. REQUIRED QUALIFICATIONS FOR THE TEACHING STAFF

1. Elementary Optics : B.Sc.. OR M.Sc., Physics
2. Clinical Ophthalmology : 1) Diploma in Ophthalmology
2) M.S. in Ophthalmology
3. Optometry : 1) Diploma in Optometry or
2) Graduate in Optometry
4. Basic Anatomy of the EYE : 1) Any Medical Graduates
(MBBS, BHMS, BAMS)

9. SUGGESTION FOR VERTICAL MOBILITY

1. Ophthalmic Assistant
2. Diploma in Optometry
(Separate Quota must be provided in above faculties
- above 1/3rd of the total seats)
3. Bachelor in Clinical Optometry - at PUNE

10. REFERENCE BOOKS

1. Ophthalmic Assistance By Stain and Slatt Mosby and Company
2. Duke Elder Refraction By Daid Abrang Churchil Living Stone
3. A TEXT BOOK of Ophthalmology By Prof. L.P. Aggarwal, Sagar Publications
4. Human Biology and Physiology By Rosi and Wilson
5. Contact Lens By V.K. Dada Sagar Publication 78, Ved Mansion Jnpath New Delhi -110 001
6. Paras's Clinical Methods - Ophthalmology.
7. May and Worth - Ophthalmic Book.

11. LIST OF PARTICIPANTS

1. **Dr.Vinod Kumar**
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6. **A.M. Sandhya Rani**
Reader
Co-ordinator
SIVE % CIE

VOCATIONAL CURRICULUM-2005

(With effect from the Academic Year 2005-2006)

**CURRICULUM OF INTERMEDIATE VOCATIONAL
COURSE IN**

O P H T H A L M I C T E C H N I C I A N



**STATE INSTITUTE OF VOCATIONAL EDUCATION &
BOARD OF INTERMEDIATE EDUCATION A.P.
Nampally, Hyderabad**

FOREWORD

The National Policy on Education (1986) while proposing educational reorganization, placed high priority on the programme of vocationalisation of education. It emphasized that well planned, systematic and rigorously implemented vocational education will create a distinct stream to prepare students for identified occupations encompassing several areas of activity. The primary aim of vocational courses was to cut across several occupational fields and prepare students with employable skills in organized sectors and self employment. Vocationalisation through re-orientation of educational strategies focused on creating a talent pool of skilled youth who are trained in courses relevant to the market and emerging needs of the various sections of the economy.

Inspired by this vision of the National Policy, the Government of Andhra Pradesh introduced Vocational Education at +2 level with an aim to diversify a sizeable segment of students at the senior secondary stage to the world of work. The State Government aimed at reducing the pressures on higher education through empowering youth by harnessing their capabilities. The requirement of skilled manpower industry is being fulfilled by charting a student's career with right options based on aptitude and talent. An right alternative to medical and engineering courses is envisaged in vocationalisation of education in the State.

In view of the changing needs of the students and growing demand for a spectrum of skill competencies in the economy, the Board of Intermediate Education has reviewed the curriculum of Vocational Courses in order to re-orient them based on their viability and practicability. The revised curriculum for Vocational Courses at Intermediate Level will come into effect from the Academic Year 2005-06 1st Year and from Academic Year 2006-07 for 2nd Year students.

I am confident that the revised curriculum will attract more and more students into vocational stream and help them train in need-based, productive courses leading to gainful employment.



SHASHANK GOEL

Secretary, BIE

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