



State Medical Faculty of West Bengal

INFORMATION BROCHURE

FOR

DIPLOMA IN OPTOMETRY WITH OPHTHALMIC TECHNIQUE 2015

State Medical Faculty of West Bengal

14/C Beliaghata Main Road,

Kolkata – 700 085

☎ 2372-0185 / 2372-0181

Fax No : 2372-0184

Website: www.smfwb.in

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INTRODUCTION:

State Medical Faculty of West Bengal was established as a statutory body by the Government of West Bengal in the Year 1914. The Faculty was entrusted with conduction of Licentiate Courses in Medical Sciences (L.M.F.). Subsequently the Faculty started conducting examination of Diploma in Pharmacy.

With the rapid growth of medical sciences it was felt necessary to train the paramedical personnel of the State. With this object in view, the State Medical Faculty started conduction of different diploma and certificate courses with the approval of the Government of West Bengal. It is essential to have a uniform standard while conducting the courses not only in Government Institutions but also in the Private Organizations and as such, the Faculty has already stipulated minimum requirement for starting conduction of different Para Medical Courses.

As per provision of Clinical Establishment Act of West Bengal any Diagnostic Laboratory possessing Valid Licence under the said Act can start the Training Course with the permission of appropriate authority provided the diagnostic laboratory fulfills the minimum requirements as stipulated by the State Medical Faculty of West Bengal.

Any Institution desirous of starting Para Medical Courses with the affiliation of State Medical Faculty of West Bengal has to fulfill the stipulated requirements and to follow the syllabus as prescribed by the Faculty. The State Medical Faculty also acts as an Examining Authority for such courses.

Conduction of a Para Medical Course in Affiliated Institutions is being monitored by the Faculty so that uniformity is maintained while conducting the same course in different institutions.

Presently, the State Medical Faculty of West Bengal is considering grant of recognition to Institutions for conducting the following courses:

<u>Sl.</u>	<u>Name of the Courses</u>
1.	Diploma in Medical Laboratory Technology
2.	Diploma in Radiography
3.	Diploma in Radiotherapeutic Technique
4.	Diploma in Optometry with Ophthalmic Technique
5.	Diploma in Perfusion Technology
6.	Diploma in Neuro Electro Physiology
7.	Diploma in Cath-Lab-Technician
8.	Diploma in Dialysis Technician
9.	Diploma in Critical Care Technology
10.	Diploma in Operation Theatre Technology

COMMON PROCEDURE FOR OBTAINING AFFILIATION FOR ANY DIPLOMA COURSE RUN BY THE FACULTY

PART – I

The intending institute which wants to start a particular course is required to collect the booklet "**Information Brochure**" for that particular Course by paying the requisite fee of **Rs.500/-**.

The Institute should create the facilities required for starting the course as per norms of the course.

The Institute after fulfilling the norms for the course is required to apply in the prescribed form annexed in **Part-II** alongwith the requisite Inspection Fee of **Rs. 5000/- for each course**. Inspection fee is not refundable.

The Faculty will send Inspection Team for physical verification of the facilities to start the course.

On the basis of report received from the Inspection Team, the Faculty may ask the Institute for compliance or modification, as the case may be, or accord permission to start the course.

Caution Money Deposit:

- i) Private Institutions to be recognized are required to deposit with State Medical Faculty of West Bengal Caution Money of Rs.50,000/- per course.
- ii) Caution Money will be treated as one-time payment till students of private institutions continue their studies.
- iii) Caution Money deposited by Private Institutions will not accrue any interest payable to the concerned depositors.
- iv) Caution Money will be refunded without any interest at the time when the institute closes their course of studies with prior intimation to the Faculty.
- v) In the event of de-recognition of the institution by the Faculty, Caution Money deposited would be forfeited.
- vi) Caution Money deposit is applicable in case of new Institute / existing Institute to conduct new course(s).

Conduction of Paramedical Courses:

Paramedical Courses should exclusively be conducted at the institute premises under the control of the Affiliated Institute, save and except Blood Bank Training for DMLT [Tech] Course, which could be done in any Government Hospital or any Private Hospital with their consent. Consent letter to be attached in Application Form for recognition.

In case of rented building of the institute, three years' rental agreement with the owner of the premises be submitted with the Application Form for grant of recognition/extension of recognition.

Fire Safety Measures:

Fire Safety Measures should be ensured. Provision for alternative exist be arranged.

In case of non-availability of Fire Safety Measures, the same may be informed and also their plan of actions for introduction/improvement of Fire Safety Measures.

Duration of Course:

Duration of Para Medical Courses is 2 years followed by 6 months compulsory Post Examination Practical Training of minimum **600 hours in 6months** after passing of Final Examination of Para Medical Courses.

Eligibility:

Any person seeking admission into the course of study in Para Medical Courses must fulfill the following conditions:

- a) That he/she has passed the Higher Secondary or an equivalent Examination of any Indian University or duly constituted Board, with pass mark in Physics, Chemistry and Biology.
- b) That he/she has attained the age of 17 years on 1st September of the respective year of his/her admission into the course in an approved institution.
- c) That he/she has furnished a certificate of physical fitness from a registered medical practitioner and two references from persons other than relatives testifying to satisfactory general character.

Selection:

Selection will be made on the basis of pass marks obtained in Physics, Chemistry and Biology in the Qualifying Examination [i.e. Higher Secondary and/or equivalent Examination]. The Faculty will, however, reserve the right to amend/alter/modify the selection procedure at its sole discretion.

Fees:

The admission and tuition fees will be charged by the individual institution with the approval of the Faculty. The Tuition Fees will be Rs.15,000/- per course per annum in respect of all Affiliated Institutions.

The Registration Fees of Rs.500/- per student per course and Examination Fees of Rs.400/- per student per examination will be charged by the State Medical Faculty of West Bengal separately in respect of students admitted in Para Medical Courses in Affiliated Institutions. Students of **ESI Hospitals, Kolkata Port Trust Centenary Hospital, Chittaranjan National Cancer Institute are required to pay Registration Fees and Examination Fees.**

Academic Session:

The Session will commence ordinarily in September of every year. The exact date is to be announced at the time of admission.

Inspection, Counseling, etc.:

Inspection is to be carried out to all Institutions including existing Institutions.

All affiliated Institutions have to join Counseling of the Faculty on scheduled date, time and venue. Seed money for joining the Counseling is Rs. 4000/- for each course. However, if they do not get students in Joint Counseling then they will be allowed for second counseling at their end.

Prospectus and Application Forms, etc. are to be issued by the Affiliated Institutions by their own arrangements for the second counseling, if any. Subject to the approval of the Faculty.

Students of the Non-Government Institutions, selected in the Joint Counseling, have to deposit Rs.15,000/- preferably by Demand Draft in favour of State Medical Faculty of West Bengal at the time of admission in the Counseling Hall. Faculty will remit this amount to the concerned Institution in due course.

Affiliated Institution has to pay Rs.500/- per student per month for six months as stipend to the students during Internship (Clinical) and/or Post-Examination Practical Training.

Affiliated Institution has to pay **Recognition Fee of Rs. 10,000/-** per course per annum.

Affiliated Institutions have also to pay **Rs.4000/-** as Examination Fee per examination per course.

Institutions should have been attached with Multi Specialty Hospital of its own; in case of DMLT [Tech] Course, Diagnostic Centre with large laboratory and in case of DRD [Tech] Course, well equipped Radio Diagnostic Centre, should have been attached.

New Institution (other than existing one) has to submit "No Objection Certificate" for conduction of course from the State Government.

Internship for all the passed out students of Diploma Courses is compulsory and that same should be completed just after passing the Final Examinations.

No Objection Certificate

I. In case of new Institute proposed for affiliation to conduct different Para Medical course(s) is required to submit Noc from State Govt

II. Similarly existing Institutes intend to conduct new Para Medical course(s) is also required to submit Noc from State Govt.

PART II

**Application for obtaining fresh affiliation or extension of affiliation of
State Medical Faculty of West Bengal for conducting _____
(Name of the Course(s))**

1. Name and address of the applicant:

Name _____

Address with Pin Code _____

Phone No. _____ Fax No. _____ E-mail _____

2. Whether any other training course(s) are running by the Institute: Yes/No

If yes, please indicate the name of other course(s): _____

3. Status of the Institution: _____

4. Details of the Institution: _____

A. If it is Society/Trust _____

The Society Registration Act No. or the Trust No. under which the Society/Trust was formed:

(i) Registration No. -----

(ii) Date of Registration -----

(iii) Place of Registration -----

(Attached copy of Registration of Society/Trust alongwith detail of constitution/Memorandum of Association of the Society/Trust)

(iv) Details of member/Trustees and their experience in running Para Medical Courses alongwith present occupation and academic background:

Name of the Member/Trustees	Designation in Society	Present Occupation	Academic Background	Experience

B. If other, specify:

- i) Name and complete postal address of the proposed Institution.
 - ii) Name and address and Telephone No. of the authorized person for communication.
 - iii) Furnish the details of Resource and funding agencies.
 - iv) Number of students proposed to be admitted.
 - v) Year of starting/proposed date of starting the course.
 - vi) Specify the nature of attached hospital/laboratories with full description thereto and status of the same.
 - vii) Registration No. of the establishment for Practical Training.
5. Details of Fire Safety Measures are as under :
(Attach separate sheet)
 6. Alternative exit arranged or not.
 7. Rented Building, Yes/No.
 8. Name of the authorized person to sign Registration forms, Admit Cards and other documents.

Note:-

- a) Copy of current license under Clinical Establishment Act of West Bengal be attached.
- b) In case of new Institution, copy of permission letter from the Government of West Bengal for conducting Para Medical Course be attached.
- c) In case of rented building of the institute, three years' rental agreement with the owner of the premises be submitted with the Application Form for grant of recognition/extension of recognition.
- d) Copies of **Blood Bank Facility (For DMLT [Tech] Course only)** provided by Govt. Hospital / Private Blood Bank if any.
- e) Copies of updated **Registration Certificate** of WBMC for Medical Faculty are attached.
- f) Copy of License under clinical Establishment Act is attached

Name :

Signature of the Head of Institute :

Date with stamp :

Availability of Existing Infrastructural Facilities:

1. Whether the Institution is/will be established in own building or in a rented building –
(Documentary evidence is required in case of owned building and in case of rented building the rent receipt and Agreement with the owner is required.)

Accommodation:-

Administrative Area:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
	Head of Department Room		
	Staff Room:		
	a) Room for Teaching Staff		
	b) Room for Technicians		
	c) Office Room		
	d) Store Room		

2. Academic Area:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
	Class Room		
	Library		
	Students' Common Room		

3. Staff:
Non-Teaching staff –

(a) Regular :

Sl.No.	Designation	Name & Address	Qualification & experience	Date of Appointment	Inspector's Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Non-Teaching staff –

(b) Part Time :

Sl.No.	Designation	Name & Address	Qualification & experience	Date of Appointment	Inspector's Remarks
1					
2					
3					
4					
5					
6					
7					

Whether potable water is supplied :
 Whether Gas is provided :
 Whether electricity is provided :
 Whether waste disposal management system is followed :

Whether the following records are maintained :

1. Attendance for staff
2. Acquittance
3. Cash Book
4. Store material receive and supply (Stock Ledgers)
5. Students Attendance
6. Student Admission Register
7. Dead Stock Register
8. Patients' Attendance Register/Daily Treatment Register in Clinic.

4. The Training Area should be provided with the following:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
1	Patient Examination Room		
2	Waiting Room for Patient		
3	Refraction Room		
4	Dark Room		
5	Special Examination Room		
6	Museum		
7	Tool Room		
8	Low Visual Aid Room		

5. Teaching Staff:

(A) Regular Faculty :

Sl.No.	Designation	Name & Address	Qualification & experience	Date of Appointment	Regn No*	Inspector's Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						

* In case of Doctor

(B) Guest Faculty :

Sl.No.	Designation	Name & Address	Qualification & experience	Date of Appointment	Regn No*	Inspector's Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						

* **In case of Doctor**

6. List of equipment:

Sl.No.	Name of Equipment	No. Required	Inspector's Remarks
1	Sterilisers		
2	Formalin Chamber		
3	Chemical Sterilization		
4	Gama Sterilization		
5	Slit Lamp		
6	Gonioscopy Lens		
7	Application Tonometer		
8	Mon-contact Tonometer		
9	Autorefractometer		
10	Keratometer		
11	Synaptophore		
12	Visulafield Analyser		
13	USG		
14	Retinoscope		
15	Ophthalmoscope (Direct)		
16	Trial Set for Refraction		
17	Trial Set For Contact Lens		

Whether the Hospital attached to the Institution is having the following units:

- i) General Out-patients
- ii) Refractions
- iii) Contact Lens
- iv) Squint
- v) Ortoptics
- vi) Glaucoma
- vii) Retina
- viii) FFA & Laser
- ix) Cornea and Eye Bank
- x) Oculopalasty
- xi) Neuro-Ophthalmology
- xii) Special Clinics like Uvea, Low Visual aids, etc.
- xiii) Clinical Pathology
- xiv) Airconditioned Operation Theatre with Microscope

Name :

Signature of the Head of Institute :

Date with stamp :

PART III**Standard requirements of infrastructural facilities
to start Para Medical Course : D.OPT****Accommodation:**

The Institution must provide potable water supply as well as Distilled/Deionised water supply. The gas and electricity must be provided wherever applicable. The Institution must have arrangement for handling the patient in case of emergency.

The Institution must provide adequate ventilation, lighting and maintain hygienic condition. The Institution should provide adequate number of toilets separately for Teaching Staff and for male and female students.

1. Administrative Area should consist of the following:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
	Head of Department Room	150 Sq. ft.	
	Staff Room:		
	a) Room for Teaching Staff	200 Sq. ft.	
	b) Room for Technicians	200 Sq. ft.	
	c) Office Room	150 Sq. ft.	
	d) Store Room	150 Sq. ft.	

2. Academic Area should provide with the following:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
	Class Room	300 Sq. ft.	
	Library	500 Sq. ft.	
	Students' Common Room	300 Sq. ft.	

3. The Training Area should be provided with the following:

Sl. No.	Particulars	Size of the room	Remarks of Inspectors
1	Patient Examination Room		
2	Waiting Room for Patient		
3	Refraction Room		
4	Dark Room		
5	Special Examination Room		
6	Museum		
7	Tool Room		
8	Low Visual Aid Room		

4. Staff -

Non-Teaching Staff:

Sl.No.	Designation	Qualification	No. Required
1	Office Superintendent	Graduate in any discipline with experience	One
2	Office Assistant	Qualification same as that of 1 with experience in Computer operation	One
3	Store Keeper	Qualification same as that of 1 with experience in Store Keeping	One
4	Library Assistant	Graduate in Science	One
5	Laboratory Attendant	Nurse (Female)	Two
6	Office Attendant	10 th Standard	Two
7	Cleaner/Safaiwala		Two

5. Teaching Staff:

The following Teaching Staff are required:

Sl.No.	Designation	Qualification	No. Required
1	Lecturer in Anatomy	MBBS with Post Graduate Diploma/Degree	One
2	Lecturer in Physiology	MBBS with Post Graduate Diploma/Degree	One
3	Lecturer in Microbiology	MBBS with Post Graduate Diploma/Degree	One
4	Lecturer in Pathology	MBBS with Post Graduate Diploma/Degree	One
5	Lecturer in Biochemistry	MBBS with Post Graduate Diploma/Degree	One
6	Lecturer in Ophthalmology	MBBS with Post Graduate Diploma/Degree	Four

6. List of Equipment required:

Sl.No.	Name of Equipment	No. Required
1	Sterilisers	Two
2	Formalin Chamber	Two
3	Chemical Sterilization	Two
4	Gama Sterilization	Two
5	Slit Lamp	Two
6	Gonioscopy Lens	Two
7	Application Tonometer	Two
8	Non-contact Tonometer	Two
9	Autorefractometer	Two
10	Keratometer	Two

Sl.No.	Name of Equipment	No. Required
11	Synaptophore	Two
12	Visulafield Analyser	Two
13	USG	One
14	Retinoscope	One
15	Ophthalmoscope (Direct)	One
16	Trial Set for Refraction	One
17	Trial Set For Contact Lens	One

7. The Institution should have a well established Eye Hospital having the following units:-

i)	General Out-patients
ii)	Refractions
iii)	Contact Lens
iv)	Squint
v)	Ortoptics
vi)	Glaucoma
vii)	FFA & Laser
viii)	Cornea and Eye Bank
ix)	Oculopalasty
x)	Special Clinics like Uvea, Low Visual aids, etc.
xi)	Clinical Pathology Lab
xii)	Airconditioned Operation Theatre with Microscope

RULES, REGULATIONS AND SYLLABUS

PART – IV

Duration of the D.OPT Course:-

(a) The first one year of the course shall be devoted to the training in the subjects of the Preliminary Courses.

(b) On completion of the Preliminary Course, the Preliminary Examination will be held.

(c) On passing the Preliminary Examination, the students shall follow for one year the curriculum of the Final Course. On completion of the course, the Final Examination will be held.

(d) After successfully passing the Final Examination, the students shall undergo Compulsory Practical Training of not less than 600 hours in not less than 6 months in a recognized hospital.

1. The Preliminary and Final Course shall include the respective subjects as given in the Tables as well as the minimum number of hours devoted to each subject, lectures, practical and demonstration, subject to addition and alteration at the discretion of the Governing Body of the State Medical Faculty.

The detailed syllabus of each subject is given in **Appendix I**.

Preliminary Course

<u>Subject to be taught</u>	<u>Allotment of Marks in</u>	
	<u>Theory+IA</u>	<u>Oral & Practical+IA</u>
1. Anatomy including Ocular Anatomy	80+20	90+10
2. (a) Physiology & Microbiology	45+5	45+5
(b) Pharmacology	45+5	45+5
3. Optics & Mechanical Optics	80+20	90+10

Final Course

<u>Subject to be taught</u>	<u>Allotment of Marks in</u>
	<u>Theory+IA</u>
1. Practice as an Eye Care Professional	80+20
2. Surgical Assistance	80+20
3. Community Ophthalmology & Eye Banking	80+20
4. Squint, Orthoptics & Refraction	80+20

Examination for the Diploma Course:

1. No person other than a student borne on the roll of an approved training institution and studying therein at the time, shall be eligible for appearing at the examination held by the Governing Body of the Faculty.
2. Every student after admission into the course of study in an approved Institution shall apply in the prescribed form **Appendix II** through the Principal/Director of the Institution with a fee of Rs.500/- to have his/her name registered in the Students' Register maintained by the Governing Body. A registration certificate bearing serial number allotted to the student will be sent to him/her through the Head of the Institution.
3. (a) There will be two examinations – (a) Preliminary and (b) Final. The examinations shall be held twice a year at such time and place as may be determined by the Governing Body.
 (b) **Internal Assessment** marks for all Para Medical Courses have been introduced from the academic session 2013, **20% of allotted marks in Theory and 10% of allotted marks in Oral and Practical in each paper of Diploma courses** would be assigned for internal assessment marks. **Pass marks in Internal assessment is 50% in each paper rounded off to the nearest five.** A candidate should not be allowed to sit for examination without pass marks in Internal Assessment.
4. **Preliminary Examination** : Only such students, who produce certificate from the Head of the approved Institutions in proof of their having regularly undergone the Preliminary Course of study by attending not less than 75% of classes, both in theoretical and practical in each subject, shall be eligible for appearing at the Preliminary Examination.

The Examination will be conducted according to the following table:

<u>Subject to be taught</u>	<u>Allotment of Marks in</u>	
	<u>Theory+IA</u>	<u>Oral & Practical+IA</u>
1. Anatomy including Ocular Anatomy	80+20	90+10
2. (a) Physiology & Microbiology	45+5	45+5
(b) Pharmacology	45+5	45+5
3. Optics & Mechanical Optics	80+20	90+10

5. All written examinations shall be of three hours' duration and the number of papers in each subject shall be as mentioned above.
6. Every candidate for the Preliminary Examination shall apply to the Secretary, State Medical Faculty of West Bengal through the Head of the Institution where he/she is undergoing his/her study, in the prescribed form together with the necessary certificates **Appendix III**.
7. No application will be entertained unless it reaches the Secretary atleast 21 days before the date notified for commencement of the examination. An application received later but not later than 14 days before the commencement of examination, may on sufficient grounds being shown and accepted, be entertained provided that a late fee of Rs.20/- is paid for the delay.

8. **Final Examination:** Only such students, who produce certificate from the Head of the Institution concerned in proof of their having regularly undergone after successfully passing the Preliminary Examination by attending not less than 75% of classes – lectures, practical and clinical of each subject separately and has worked for atleast 350 days in the Ophthalmology Department of a recognized Hospital shall be eligible for appearing at the examination as given in the following table:

<u>Subject to be taught</u>	<u>Allotment of Marks in Theory+IA</u>
1. Practice as an Eye Care Professional	80+20
2. Surgical Assistance	80+20
3. Community Ophthalmology & Eye Banking	80+20
4. Squint, Orthoptics & Refraction	80+20

<u>Subject to be taught</u>	<u>Allotment of Marks in Clinical Assessment</u>
1. Refraction	} 200
2. Squint & Orthoptics	
3. Eye Diseases	
4. Investigations	

<u>Subject to be taught</u>	<u>Allotment of Marks in Oral & Practical</u>
1. Practice as an Eye Care Professional	} 200

9. Every candidate for the Final Examination shall apply to the Secretary, State Medical Faculty of West Bengal through the Head of the Institution where he/she had been undergoing his/her course of studies, together with the necessary certificates from the Head of the Institution **Appendix IV**.
10. The fee payable with the application shall be such as may be prescribed by the Governing Body from time to time. The fee is not refundable on any account.
11. No such application will be entertained unless it reaches the Secretary atleast 21 days before the date notified for commencement of the examination. An application received later but not later than 14 days before the commencement of examination, may on sufficient grounds being shown and accepted, be entertained provided that a late fee of Rs.20/- is paid for the delay.
12. A candidate declared to have passed the above examinations – both Preliminary and Final – if he/she secures 50% of the total marks in each subject – Theoretical + Oral – 50% and Practical – 50%. A candidate securing 75% marks or above in any subject or subjects, shall be declared to have obtained "Distinction" in that subject or subjects, provided he/she passes in all the subjects of the examination at the same time and at his/her first appearance at the examination.

13. A candidate, who appears at the Preliminary or Final Examination for the course but fails to pass in all the subjects or in one or more subjects, may be admitted to one or more subsequent examinations in subject or subjects in which he/she failed provided, however, that he/she passes in all the subjects in three subsequent examinations within a period of two years computed from the date of the examination in which he/she appeared for the first time. If he/she does not pass the entire examination within a period of two years, as mentioned above, he/she shall have to take the whole examination in all the subjects at the time when he/she appears next.
14. A failed candidate shall have to undergo a further course of training and produce a certificate from the Head of the Institution stating that he/she has, since the date of the last examination and within the period of six months proceeding his/her re-examination, attended to the satisfaction of the Head of the Institution further course of study in the subject or subjects in which he/she failed **Appendix V**.
15. The general rules and regulations regarding conduct of examinations of the State Medical Faculty of West Bengal shall apply with necessary modifications for the conduct of Diploma in Optometry with Ophthalmic Technique : D.OPT examinations. Detailed rules and regulations may be framed by the Governing Body from time to time.

AWARD OF DIPLOMA IN OPTOMETRY WITH OPHTHALMIC TECHNIQUE COURSE : D.OPT

1. A candidate who passes successfully the Final Examination will be granted a Diploma in Optometry with Ophthalmic Technique : D.OPT.
2. Every such application shall be accompanied by a certificate from the Head of the recognized Hospital, in the form given in **Appendix VI**, with all the particular mentioned therein and the Head of the Institution shall forward the same to the Secretary, in the form given in **Appendix VII**, stating whether he/she considers him/her eligible to receive the Diploma in Optometry with Ophthalmic Technique: D.OPT.
3. The Governing Body may then, if satisfied that all requirements of these regulations have been fulfilled, issue the Diploma, which shall be in the form given in **Appendix VIII**.

PART IV**Appendix I****SYLLABUS : Preliminary Course**

Sl. No.	Particular
1. Biology and Human Welfare : 2 Lectures	
I	Infectious diseases : General : Causes, control, immunity and chemotherapy
II	Diseases of man : Definition of diseases, different types of pathogens (bacteria, viruses and virus like organisms, fungi, helminthes, protozoa, etc.) sources of infection, infection and contagion, economic importance of diseases, methods of prevention and biological control.
2. Anatomy and Physiology of the Human body : 14 Lectures	
I	Cell structure and function
II	Tissues : Epithelial, Muscular, Connective (cartilage and bone) and nervous
III	Skeletal system
IV	Muscular system
V	Blood
VI	Circulatory system
VII	Digestive system
VIII	Respiratory system
IX	Nervous system
X	Endocrine system
XI	Urinary system
XII	Ear
XIII	Skin
XIV	Nose and Tongue
3. Anatomy of the Eye and Orbit : 15 Lectures	
I	Orbit – its relations and vascular communications
II	Eyelid and its glands
III	Conjunctiva
IV	Lacrimal apparatus
V	Extraocular muscles
VI	Cornea and Sclera
VII	Iris, Ciliary body and choroids
VIII	Retina
IX	Lens and vitreous
X	Optic Nerve and Visual pathway
XI	Cranial nerves III, IV
XII	Cranial nerves V, VI, VII
XIII	Para Sympathetic and sympathetic nerve in relation to the eye
XIV	Pituitary gland and Cavernous sinus
XV	Embryology of the eye
4. Physiology of the Eye : 17 Lectures	
I	Vascular circulation of eye
II	Aqueous humour
III	Intra-ocular pressure
IV	Vitreous
V	Cornea and sclera
VI	Lens
VII	Retina
VIII	Protective mechanism of eye (2 lectures)

IX	Physiology of vision (2 lectures)
X	Light reflex, accommodation and convergence (2 lectures)
XI	Physiology of extraocular muscles
XII	Ocular movements and binocular vision
XIII	Electroretinogram and adaptation
XIV	Visual acuity and testing
5. Ocular Microbiology : 6 Lectures	
I	Ocular microbiology
II	Bacteria
III	Viruses
IV	Fungi
V	Protozoa (Parasites)
VI	Sterilization
6. Ocular Pharmacology : 13 Lectures	
I	General aspects of Pharmacology (3 lectures)
II	Anti-microbials (3 lectures)
III	Anti-inflammatory drugs (2lectures)
IV	Autonomic drugs and anti-glaucoma agents (2 lectures)
V	Drugs for dry eye and diagnostic agents
VI	Ocular anaesthetics
VII	Ophthalmic prescriptions
7. Optics : 21 Lectures	
I	Physical Optics : <ul style="list-style-type: none"> ➤ Properties of light ➤ Principles of reflection of light ➤ Principles of refraction of light ➤ Lenses and their combinations
II	Physiological Optics : <ul style="list-style-type: none"> ➤ General concepts of eye as a refracting apparatus ➤ The corneal and lenticular systems ➤ Optical resolution of the eye ➤ Visual angles, visual acuity and visual axes ➤ Optical aberrations of the eye
III	Principles of Ophthalmic Procedures <ul style="list-style-type: none"> ➤ Darkroom procedures ➤ Ophthalmoscopy ➤ Retinoscopy ➤ Subjective examination ➤ Errors of Refraction ➤ Hypermetropia ➤ Myopia ➤ Astigmatism ➤ Refractive surgery ➤ Anisometropia and aniseikonia ➤ Accommodation ➤ Convergence

8. Mechanical Optics and Workshop : 14 Lectures	
I	Mechanical Optics : <ul style="list-style-type: none"> ➤ General power, shape and size of lenses ➤ Transposition of spectacle lenses ➤ Spherical lenses ➤ Cylindrical lenses ➤ Bifocals and multifocals ➤ Ophthalmic prisms ➤ Oblique cylinders ➤ Protective and plastic lenses ➤ Lens measure : GENEVA ➤ Focimeter ➤ Special lenses-miscellaneous lenses and appliances
II	Workshop : <ul style="list-style-type: none"> ➤ Grinding machines ➤ Grinding materials ➤ Tools and gauge and their testing

SYLLABUS

Final Course

Sl. No.	Particular
9. Practice as an Eye Care Professional : 66 Lectures	
I	Initial patient contact and reception and ethics
II	Office manner, secretarial assistance, records and their retrieval
III	Ophthalmic equipment
IV	Maintenance of ophthalmic equipment
V	Examination of the eye
VI	Special investigations
VII	Routine ophthalmic investigation
VIII	Conjunctival smear, fluorescein staining and pH testing
IX	Colour vision
X	Visual fields
XI	Syringing and lacrimal function tests
XII	Refractometer and focimeter usage
XIII	Tension taking
XIV	Keratometry
XV	Pachometry
XVI	Anaesthesiometry and dark adaptometry
XVII	Exophthalmometry
XVIII	A Scan and B Scan

Sl. No.	Particular
10. Orthoptics, Pleoptics and Muscular Imbalance : 19 Lectures	
I	Normal Binocular function, Grades of Binocular vision, Simultaneous perception, Fusion and Stereopsis
II	Aetiology of strabismus-motor, central and sensory
III	Methods of examination of strabismus, History, visual acuity and cover test a) Ocular movements and their testing b) Measurements of angle of squint c) Testing of Binocular function d) Heterophoria : classification, clinical picture and investigations
IV	Esophoria : Classification, investigation and therapy
V	Exophoria: Classification, investigation and therapy
VI	Hyperphoria and cyclophoria
VII	Abnormalities of binocular vision – diplopia, confusion and suppression
VIII	Abnormal retinal correspondence (1) definition, aetiology and classification, investigation and relative importance
IX	A.C/A ratio : Its importance in congenital squint, methods of testing
X	Congenital squint (Accommodative): Aetiopathogenesis, classification and special investigations
XI	Treatment of accommodative squint; Optical, orthoptic, miotic surgery
XII	Non-accommodative squint : Classification, investigation and treatment
XIII	Divergent squint (1) Classification and clinical picture
XIV	Divergent squint (2) Investigation and treatment
XV	Vertical squint : Aetiology, classification, investigation, differential diagnosis of primary and secondary vertical squints
XVI	Alternating circumduction : Aetiology, classification, clinical picture, investigation and management
XVII	Suppression : Detection and treatment
XVIII	Amblyopia : Definition, aetiology, development, classification, detection and management with occlusion therapy
XIX	After image : Definition, description usage of after images in
XX	Haidinger brushes : Therapy, their usage in diagnosis and therapy
XXI	Pleoptic therapy : Cupper's method, Bangerter's method
XXII	Fixation anomalies
XXIII	Indications of orthoptic and surgical treatment of strabismus
XXIV	Postoperative orthoptic management
XXV	Accommodative anomalies
XXVI	Convergence anomalies
XXVII	Nystagmus
11. Nutrition and eye diseases:	
I	Nutritional deficiencies : Vitamins
II	Nutritional deficiencies : Proteins, fat, carbohydrates and minerals
12. Industrial Hazards and their Prevention:	
I	Industrial injuries/accidents and foreign bodies
II	U.V. infrared and other radiation injuries, thermal injuries
13. Community Ophthalmology : (Eye Campus)	
I	Eye screening programmes, school clinics and surveys
II	Blind person and his problems, rehabilitation of the blind
III	Health education in the field of Eye Care Organization of eye camps
IV	Eye donation motivation
14. Lectures on General First-aid, resuscitation and Bandages	

Sl. No.	Particular
15. Common Eye Diseases of :	
I	Eyelids, Orbit, Adnexa, Conjunctiva, Cornea, Sclera, Uvea, Lens, Retina, Glaucoma, Injuries of eye
16. Class on Typing	
17. Computer : 10 Lectures	
I	Introduction to Computer
II	MS-DOS operating system
III	Computer hardware, input output devices, peripherals
IV	Computer software
V	MS-Word
VI	MS-Excel
VII	MS-Power Point
18. Sterilization and theatre : 6 Lectures	
I	General Aspects
II	Sterilization and disinfections
III	Theatre set up
IV	Principles of sterilization - asepsis and antisepsis
V	Eye instruments and operating room equipment
VI	Surgical scrub and donning sterile linen and gloves
19. Pre and Post-operative procedures : 10 Lectures	
I	Preoperative preparation
II	Post operative care, general considerations
III	Surgical preparation and draping
20. Outlines of operative procedures : 10 Lectures	
I	Lids
II	Lacrimal apparatus
III	Extraocular muscles
IV	Cornea
V	Lens
VI	Glaucoma
VII	Eye banking and anucleation
VIII	Trauma
IX	Retina and vitreous
X	Application of lasers
21. Community Ophthalmology : 4 Lectures	
I	Functioning of Mobile Eye Health Care Units including Eye Camps and practical participation in the same guidelines for conducting eye camps. Causes of visual impairment and blindness. National Programme for prevention and control of blindness.

PRACTICALS : PRELIMINARY

- ◆ Reception and registration and record keeping
- ◆ O.P.D. posting
- ◆ Vision and refraction
- ◆ Minor operative techniques
- ◆ Ward posting
- ◆ Workshop making and fitting of glasses

PRACTICALS : FINAL

- ◆ Making and fitting of glasses
- ◆ Refractive errors and their determination
- ◆ Maintenance of ophthalmic equipment
- ◆ Contact Lenses
- ◆ Orthoptic and pleoptics
- ◆ Refractive errors and their determination
- ◆ Theatre – its sterilization and sterilization of ophthalmic and surgical instruments
- ◆ Community ophthalmology and camps
- ◆ Refractive errors and their determination in camps
- ◆ Low visual aids
- ◆ Ocular prosthesis
- ◆ Investigation procedures
- ◆ Optical workshop
- ◆ Refractive errors and their determination
- ◆ Theatre assistance
- ◆ Contact Lense

PRACTICAL TRAINING PROGRAMME

1. Reception/Record Keeping:
 - ◆ Practice as an Eye Care Professional

2. Refraction:

• Vision recording-distance/near	500 cases
• Colour vision (Ishihara) recording	50 cases
• Lensometry and vertex refractionometer	500 cases
• Retinoscopy and prescription of glasses	200 cases
• Subjective verification and PMT	300 cases
• Measurement and verification of IPD	300 cases
• Centering and decentering	50 cases
• Transposition of lenses	50 cases
• Auto-refractor	50 cases

3. Visual Fields:

• Peripheral & Clinical	20 cases
• Fluorescein angiography	20 cases
• Ultrasonography	20 cases

4. Treatment room and minor surgical procedures:
 - Instillation of drops 100 cases
 - Sub conjunctival injection 50 cases
 - Laying the trolley for minor surgery 25 cases
 - Syringing 100 cases
 - Tonometry (and Tonometer care) 50 cases
 - Epilation 10 cases
 - Corneal-suture removal 10 cases

5. Eye OPD : Eye diseases (during Rotational Duty):
 - History taking and recognition of conjunctivitis, corneal ulcer, trichiasis, entropion, cataract, cataract, glaucoma and squint, etc. 100 cases

6. Orthoptic Clinic:
 - History taking recording 25 cases
 - Cover test Maddox rod/Maddox wing 10 cases
 - Convergence/accommodation (RAF rule) 10 cases
 - Synaptophore and prism bar orthoptic analysis 50 cases
 - Occlusion treatment 10 cases

7. Indoor cases (including record keeping):
 - Blood pressure, urine and smear examination, Laying of Trolley and post-operative, Dressing rotational duty. 100 cases

8. Operation Theatre:
 - Preparation of Theatre 5 Times
 - Carbolisation and fumigation 5 Times
 - Autoclaving/sterilization of instruments Swabsticks, linen, pads, drums 5 Times
 - Laying of trolley for surgery (Cataract, Glaucoma, Sac, Squint, etc.) 50 cases
 - Maintenance of O.T. equipments/surgical instruments

9. Contact Lens/Prosthesis:
 - Contact Lens fitting 10 cases
 - Prosthesis fitting 10 cases
 - Keratometry 10 cases
 - Biometry 20 cases

10. Maintenance of Ophthalmic Equipments/Instruments:
 - Cryo, Operation Table, Operation Microscope, Silt Lamp, Ophthalmoscope, Retinoscope, Keratometer, Auto-refractor, Synaptophore, Perimeters, Trial Sets, Torches, Vitrectomy machine and others.

CLINICAL AND PRACTICAL - PRELIMINARY

- ◆ Attending OPD i.e. dilatation of pupils, etc.
- ◆ Reception
- ◆ Records
- ◆ Minor Operation Techniques
- ◆ Orthoptic – I
- ◆ Ward Posting
- ◆ Pathology

CLINICAL AND PRACTICAL - FINAL

- ◆ Refraction
- ◆ Lens fitting and workshop
- ◆ Investigation
- ◆ OPD
- ◆ Operation Theatre
- ◆ Wards

Community Ophthalmology and camps:

- ◆ Refractive errors and their determination in hospital and in camps
- ◆ Theatre – Its sterilization and sterilization of Ophthalmic and Surgical instruments in camps
- ◆ Camps – organization and conduction
- ◆ Low visual aids
- ◆ Ocular prosthesis

- ◆ Operation Theatre
- ◆ Salesmanship and optical corner
- ◆ OPD
- ◆ Refractive errors
- ◆ Orthoptic – II
- ◆ Ward

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX II

Form of application for registration of the name of a student admitted to an approved Training institution for Diploma in Optometry with Ophthalmic Technique : D.OPT Course

[Vide Regulation 2 of Part IV]

1. Name of the student in full :
2. Address –
(a) Permanent :

- (b) Present :
3. Father's Name :
{In case of married women, her
Husband's name}
4. Age [as on the date of admission] :
5. Race – Caste or religion :
6. Name of the approved training Institution :
7. Date of admission :
8. Preliminary educational qualification :

Signature of the applicant

I hereby certify that the above particulars are true to my knowledge.

Dated, the20
Place :

Signature of the Head of the Institute

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX III

Application for admission to the Preliminary Examination for Diploma in Optometry with
Ophthalmic Technique : D.OPT Course

[Vide Regulation 6 of Part III]

To
The Secretary, State Medical Faculty of West Bengal.

Sir,

I beg to apply for admission to the ensuing Preliminary Examination for Diploma in Optometry with Ophthalmic Technique : D.OPT Course to be held by the Governing Body of the State Medical Faculty of West Bengal from

The required certificate from the Head of the Institution is given herewith and I have paid the prescribed fee of Rs. in his office.

- | | | |
|----|------------------------------|---|
| 1. | Name in full (Block letters) | : |
| 2. | Father's Name | : |
| 3. | Present Age | : |
| 4. | Student Registration No. | : |
| 5. | Permanent Address | : |
| 6. | Present | : |

Dated, the20

Signature of the applicant in full

Certificate of the Head of the Institution

I certify as below –

[1] that the above named was admitted in this Institution for the course of Diploma in Optometry with Ophthalmic Technique : D.OPT Course on

[2] that previous to his/her admission, he/she has attended regularly the course of studies as laid down in the Regulations. His/her attendance in the several subjects being as below:

<u>Subject</u>	<u>No. of Theoretical lectures and demonstrations</u>	<u>No. of Attendance</u>
1. Anatomy including Ocular Anatomy		
2. (a) Physiology & Microbiology		
(b) Pharmacology		
3. Optics & Mechanical Optics		

That he/she has paid in my office the prescribed fee of Rs.400/- which is being separately remitted to the Faculty.

That his/her conduct in the Institution was satisfactory.

Signature of the Head of the Institute

Dated, the20

Place :

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX IV

Application for admission to the Final Examination for Diploma in Optometry with Ophthalmic Technique : D.OPT Course

[Vide Regulation 5 of Part IV]

To
The Secretary, State Medical Faculty of West Bengal.

Sir,

I beg to apply for admission to the ensuing Final Examination for Diploma in Optometry with Ophthalmic Technique : D.OPT Course to be held by the Governing Body of the State Medical Faculty of West Bengal from*

The required certificate from the Head of the Institution is given herewith and I have paid the prescribed fee of Rs. in his office.

I passed the Preliminary Examination in and my present age is

- 1. Name in full (Block letters) :
- 2. Father's Name :
- 3. Present Age :
- 4. Student Registration No. :
- 5. Permanent Address :
- 6. Present :

Dated, the20 Signature of the applicant in full
* State name of the training institution.

Certificate of the Head of the Institution

I certify as below –

[1] that the above named passed the Preliminary Examination for Diploma in Optometry with Ophthalmic Technique : D.OPT Course in

[2] that he/she has attended regularly in this Institution. The 2nd Year's course of studies laid down in the Regulations and fulfilled the other requirements.. His/her attendance in the several subjects being as below:

<u>Subject</u>	<u>No. of Theoretical lectures and demonstrations</u>	<u>No. of Attendance</u>
[a] 1. Practice as an Eye Care Professional 2. Surgical Assistance 3. Community Ophthalmology & Eye Banking 4. Squint, Orthoptics & Refraction		
[b] Refraction, Squint & Orthoptics, Eye diseases, Investigations		
[c] Making and fitting of lenses, Operation theatre procedures and Instruments & Equipments		

[3] That he/she has paid in my office the prescribed fee of Rs.400/- which is being separately remitted to the Faculty.

[4] That his/her conduct in the Institution was satisfactory.

Dated, the20 Signature of the Head of the Institute

STATE MEDICAL FACULTY OF WEST BENGAL**APPENDIX V**

(Certificate by the Head of the Institution regarding further course of training in the subject or subjects in case of a failed candidate)

[Vide Regulation of Part]

This is to certify that Sri/Sm. who appeared at the Preliminary/Final Examination for the Diploma in Optometry with Ophthalmic Technique : D.OPT Course in20 and failed in has undergone a further course of training in the following subject/subjects since the date of the last examination to my entire satisfaction.

Sl. No.	Subject(s)	Number of Theoretical Lecturers/ Demonstrations attended
-----	-----	-----

Signature of the Head of the Institute

Dated, the20

Place :

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX VI

(Certificates to be produced by students of Diploma in Optometry with Ophthalmic Technique :
D.OPT Course after completion of Practical Training)

[Vide Regulation 2 of Part IV]

No. :

Date :

I....., hereby certify that.....
[name of the student] after passing the Final Examination for Diploma in Optometry with
Ophthalmic Technique : D.OPT underwent practical training forhours during the
period fromto under my supervision and guidance.

Signature

Name

Designation

Address

(Countersigned by the Head of the Hospital)

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX VII

[Vide Regulation 2 of Part IV]

To
The Secretary
State Medical Faculty of West Bengal
Dated, the20

Sir,

I am to say that the under-mentioned students have passed the Final Examination for the
Diploma in Optometry with Ophthalmic Technique : D.OPT Course held by the Faculty in
.....20 and have thereafter undergone the practical training as required under the
Regulations of which the necessary certificates are enclosed. I certify that I consider the students
to be eligible to receive the Diploma in Optometry with Ophthalmic Technique : D.OPT Course .

Yours faithfully,

Head of the Institution

STATE MEDICAL FACULTY OF WEST BENGAL

APPENDIX VIII

[Vide Regulation 3 of Part V]

Diploma in Optometry with Ophthalmic Technique Course : D.OPT

We, the President and Members of the Governing Body of the State Medical Faculty of West Bengal, acting under the authority vested in us by Article 22 of the Statutes of the said Faculty and in accordance with the Regulations made there under with the approval of the Government of West Bengal, do hereby declare thatafter undergoing the prescribed course of training for the Diploma in Optometry with Ophthalmic Technique : D.OPT, duly passed the Final Examination for the Diploma in Optometry with Ophthalmic Technique : D.OPT held by this Faculty in the month of20 with distinction.

And we, accordingly, grant him/her this Diploma in Optometry with Ophthalmic Technique : D.OPT of this Faculty.

Dated at Kolkata, theday of in the year

Signed on behalf of the Governing Body of the State Medical Faculty of West Bengal.

Secretary

President

Signature of the holder

REPORT OF THE INSPECTORS

Part V

Summary of findings by the Inspectors in respect of _____
 For _____ Course. Name of the Institution

1. Accommodation (including toilet, ventilation, light) :
2. Fire Safety Measures available or not? :
3. Water, Electricity, Gas & Waste Disposal :
4. If the Institute is in rented building, then 3 years Agreement is shown or not? :
5. Furniture :
6. Office Records :
7. Laboratory equipment :
8. Qualification of Teachers :
9. Teacher-student ratio :
10. Workload of teachers :
11. Library books and Journals :
12. No. of working days in the session :
13. Daily working hours :
14. Laboratory facilities provided to the students :
15. Standard of teaching :
16. Standard of students :
17. Performance of students in
 - i) Theoretical :
 - ii) Practical :
 - iii) Oral :
18. Facilities provided for conducting the examination (Examination hall rented may be allowed) :

19. Date of Last Inspection :
 20. In case of DMLT [Tech] Course Blood Bank facilities have been shown in Government Hospital/Private Hospital and attendance of DMLT students in Blood Bank has been seen. :
 21. Compliance of past deficiencies (if any) :
 22. NOC from State Govt. for conduction of new course has been seen. :
 23. Updated License for clinical Establishment Act. has been seen. :
 24. Updated Registration Certificates of the Doctor Tutors from WBMC. :
 25. Recommendation of Inspectors: The Institution may be granted affiliation/following conditions are to be fulfilled before consideration of extending/according affiliation.
- 1.
 - 2.

Name and Signature of the Inspectors with date