

**Vocational Practical Question Bank**

**First Year**

**Ophthalmic Technician**

**Course Code:613**

**State Institute of Vocational Education**

**O/o the Commissioner of Intermediate  
Education,**

**Telangana, Hyderabad**

**&**

**Board of Intermediate Education,**

**Telangana, Hyderabad**

**OPHTHALMIC TECHNOLOGY**  
**FIRST YEAR**  
**SUBJECT : ANATOMY, PHYSIOLOGY & PHARMACOLOGY**  
**PAPER - I**

**Time : 3 Hours**

**Max. Marks : 50**

**Section - I**

**(1 x 8 = 8 Marks)**

1. Draw the sketch diagram of Eye and label the parts.
2. Draw the sketch diagram of cornea and mark the layers.
3. Draw the sketch diagram of lacrimal apparatus and mark the parts.
4. What are the commonly used Antibiotics in Ophthalmology.
5. Write about Accommodation.
6. Write about methodology of application of medication in eye.

**Section - II**

**(1 x 8 = 8 Marks)**

7. Write about inflammation.
8. Write about importance of Urine examination.
9. Write the physiology of Colour vision.
10. What is Antiseptic?
11. Write about human crystalline lens.
12. Write about visual fields.

**Section - III**

**(1 x 8 = 8 Marks)**

13. Draw the Accommodation process in Eye.
14. Draw the Layers of Tear film.
15. Draw the pupillary reflexes.
16. Write about anatomy of cornea.
17. Write about importance of tear film.
18. Write about Aqueous dynamics.

**Section - IV**

**(2 x 4 = 8 Marks)**

19. (a) Anatomy of the Eye  
(b) Cornea
20. (a) Different layers of Cornea  
(b) Tear - Film
21. (a) Aqueous Dynamics  
(b) Vitreous Importance
22. (a) Sterilization of Operation theatre  
(b) Aseptic Techniques
23. (a) Diabetes and Hypertension  
(b) Importance of Urine Examination
24. (a) Visual Fields  
(b) Evaluating Visual fields

**Section - V**  
**Describe**

**(4 x 2 = 8 Marks)**

25. (a) Various parts of Eye  
(b) Pupillary Reflexes  
(c) Cornea and Layers of cornea  
(d) Lens and Accommodation
26. (a) Anterior segment of Eye  
(b) Posterior segment of Eye  
(c) Aqueous Humour  
(d) Vitreous Humour
27. (a) Physiology of Colour Vision  
(b) Aseptic Techniques  
(c) Inflammation  
(d) Urine Examination
28. (a) Importance of Iris  
(b) Ciliary body  
(c) Choroid  
(d) Sclera
29. (a) Diabetes and relation with Eye  
(b) Hypertension  
(c) Urine examination  
(d) Pupillary reflexes
30. (a) Antibiotics of Ophthalmology  
(b) Aseptic Techniques  
(c) Confrontation test in Visual fields  
(d) Application of bandage to eye.

**Section - VI**

Record

5 Marks

Viva

5 Marks

**OPHTHALMIC TECHNOLOGY**  
**First Year**  
**MODEL QUESTION PAPER**  
**Subject : Anatomy, Physiology & Pharmacology**  
**Paper - I**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I**

**1 x 8 = 8 marks**

4. Draw the sketch diagram of Eye and mark all parts.

**Section - II**

**1 x 8 = 8 Marks**

8. Write about Accommodation and its mechanism.

**Section - III**

**2 x 4 = 8 Marks**

17. Write aqueous humour and Vitreous humour.

**Section - IV**

**2 x 4 = 8 Marks**

22. (a) Sterilization process of Operation theatre.

(b) Physiology of Colour vision.

**Section - V**

**4 x 2 = 8 Marks**

25. (a) Anterior segment of Eye.

(b) Posterior segment of Eye.

(c) Colour vision tests.

(d) Diabetes and Hypertension.

**Section - VI**

**Record**

**5 Marks**

**Viva**

**5 Marks**

**Note :** The Serial numbers of the questions mentioned above are the serial numbers in question bank. In practical examination only the serial number of the questions will be given, the examiner shall decode it with question bank and give the questions.

**OPHTHALMIC TECHNOLOGY**  
**First Year**  
**PRACTICAL SCHEME OF VALUATION**  
**Subject : Anatomy , Physiology & Pharmacology**  
**Paper - I**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I,II,III Major Questions (1 x 8 = 8 Marks)**

- |                                    |   |         |
|------------------------------------|---|---------|
| 1. Principle / Objective / Purpose | : | 1 mark  |
| 2. Material                        | : | 1 mark  |
| 3. Procedure / Method              | : | 4 marks |
| 4. Result / Observation / Comment  | : | 2 marks |

**Section - IV (2 x 4 = 8 Marks)**

- |                              |   |         |
|------------------------------|---|---------|
| 1. Purpose / Use / Objective | : | 1 mark  |
| 2. Method / Description      | : | 2 marks |
| 3. Result or Remark          | : | 1 mark  |

**Section - V Identification and Use (4 x 2 = 8 Marks)**

- (a) Uses of Mydriatics
- (b) Lachrymal test
- (c) Visual fields recording
- (d) Eliciting of Pupillary reflexes

**Section - VI**

- |               |   |         |
|---------------|---|---------|
| <b>Record</b> | : | 5 Marks |
| <b>Viva</b>   | : | 5 Marks |

# OPHTHALMIC TECHNOLOGY

First Year

## Subject : PHYSICAL & PHYSIOLOGICAL ASPECTS OF SPECTACLES

Paper - II

Time : 3 Hours

Max. Marks : 50

### Section - I

(1 x 8 = 8 Marks)

1. Draw the sketch diagram of Refractive errors.
2. Draw the sketch diagram of principles of Refraction.
3. Draw the sketch diagram of forms of Lenses.
4. Describe the prismatic effect.
5. Describe the optical aberrations.

### Section - II

(1 x 8 = 8 Marks)

6. Write about principle of Retinoscopy.
7. Write about prisms.
8. Write about Low vision aids.
9. What is Presbyopia.
10. What is Myopia.
11. What is Hypermetropia.

### Section - III

(1 x 8 = 8 Marks)

12. How are convex lens made.
13. Write about Astigmatic lenses.
14. Write about ophthalmic lenses.
15. How are concave lenses made.
16. Write about uses of Prism.
17. Write about contact lenses.

### Section - IV

(2 x 4 = 8 Marks)

18. (a) Advantages of Contact lenses.  
(b) Advantages CR39 Lenses.
19. (a) Describe optical aberrations  
(b) Identification of lenses.
20. (a) Eye as refractive apparatus  
(b) Lens forms
21. (a) List of Ophthalmic lenses.  
(b) Types of Contact lenses
22. (a) Convex lenses and their uses.  
(b) Prism and its uses.
23. (a) Presbyopia and its correction.  
(b) Concave lenses and their uses.

**Section - V**

**(4 x 2 = 8 Marks)**

- 24. (a) Principles of Reflection
  - (b) Refraction
  - (c) Reflection
  - (d) Absorption
- 25. (a) Properties of light
  - (b) Ray of light
  - (c) Visible wave length
  - (d) Infrared light
- 26. (a) Contact lenses
  - (b) Ophthalmic lenses
  - (c) Prisms
  - (d) CR39 lenses
- 27. (a) Low vision Aids
  - (b) Presbyopia
  - (c) Astigmatism
  - (d) Myopia & Hyperopia
- 28. (a) Aphakia
  - (b) I.O.L
  - (c) Pseudophakia
  - (d) Aphakic glasses
- 29. (a) Optical Aberrations
  - (b) Pin-cushion Distortion
  - (c) Aspheric lens
  - (d) High-Index Lens

**Section - VI**

Record

5 Marks

Viva

5 Marks

**OPHTHALMIC TECHNOLOGY**  
**First Year**  
**MODEL QUESTION PAPER**  
**Subject : Physical & Physiological Aspects of Spectacles**  
**Paper - II**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I**

**1 x 8 = 8 marks**

3. Define all refractive errors along with diagrams.

**Section - II**

**1 x 8 = 8 Marks**

10. Write about Prisms and their uses.

**Section - III**

**1 x 8 = 8 Marks**

14. Write about contact lenses and their advantages.

**Section - IV**

**2 x 4 = 8 Marks**

19. (a) Describe principles of Refraction

(b) Forms of Ophthalmic lenses.

**Section - V**

**4 x 2 = 8 Marks**

25. (a) Convex lens

(b) Concave lens

(c) Prism

(d) Aspheric lens

**Section - VI**

**Record**

**5 Marks**

**Viva**

**5 Marks**

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**OPHTHALMIC TECHNOLOGY**  
**First Year**  
**PRACTICAL SCHEME OF VALUATION**  
**Subject : Physical & Physiological Aspects of Spectacles**  
**Paper - II**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I,II,III Major Questions (1 x 8 = 8 Marks)**

1. Principle / Objective / Purpose : 1 mark
2. Materials : 1 mark
3. Procedure / Method : 4 marks
4. Result / Observation / Comment : 2 marks

**Section - IV (2 x 4 = 8 Marks)**

1. Purpose / Use / Objective : 1 mark
2. Method / Description : 2 marks
3. Result or Remark : 1 mark

**Section - V Identification and Use (4 x 2 = 8 Marks)**

- (a) Diagrams of refraction
- (b) Practical demonstration of refraction through Prism
- (c) Refraction through convex lens
- (d) Refraction through concave lens

**Section - VI**

- Record** : 5 Marks  
**Viva** : 5 Marks

# OPHTHALMIC TECHNOLOGY

First Year

Subject : Community Ophthalmology & Health Education  
Paper - III

Time : 3 Hours

Max. Marks : 50

Section - I

(1 x 8 = 8 Marks)

1. What is blindness?
2. What are the specific measures to prevent injuries?
3. What is cataract?
4. Signs of Vitamin, A deficiency.
5. What are the reading problems in children.
6. What is incidence of disease?

Section - II

(1 x 8 = 8 Marks)

7. Write about Eye donation.
8. What is Glaucoma?
9. What are epidemics.
10. What is conjunctivitis?
11. What are the causes for blindness?
12. Write about examination of eye.

Section - III

(1 x 8 = 8 Marks)

13. Write about eye injuries.
14. Write about occupational hazards to eye.
15. Write about xerosis.
16. Write about Trachoma.
17. Write about nutrition to Eye.
18. Detection of blindness.

Section - IV

(2 x 4 = 8 Marks)

19. (a) Write about cataract  
(b) Causes of cataract
20. (a) Screening of school children  
(b) Survey of school children.
21. (a) Signs of conjunctivitis  
(b) Symptoms of conjunctivitis
22. (a) Write about Eye donation  
(b) Importance of Eye camps
23. (a) Eye screening of Industrial workers.  
(b) Eye protection from Industrial hazards.
24. (a) Reading problems in children.  
(b) Vitamin-A deficiency.

**Section - V**

**(4 x 2 = 8 Marks)**

**Identify the following**

- 25. (a) Retinoscope
- (b) Direct Ophthalmoscope
- (c) Occuluder
- (d) Muscle test torch
- 26. (a) Fixation light
- (b) Snellen's chart
- (c) Chart for illiterates
- (d) Slit-Lamp
- 27. (a) Lensometer
- (b) Prism lenses
- (c) Protective Eye wear
- (d) Prism bar
- 28. (a) Eye bandage
- (b) Punctum dilator
- (c) Tonometer
- (d) Occluder
- 29. (a) Pin-hole
- (b) Maddox rod
- (c) Prentice ruler for near vision
- (d) IPD measuring scale
- 30. (a) Lens marker
- (b) Digital lens-meter
- (c) Sterilizer
- (d) Eye protection cup.

**Section - VI**

Record

5 Marks

Viva

5 Marks

**OPHTHALMIC TECHNICIAN**  
**First Year**  
**MODEL QUESTION PAPER**  
**Subject : Community Ophthalmology & Health Education**  
**Paper - III**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I** **1 x 8 = 8 marks**

1. Write about signs and symptoms of glaucoma.

**Section - II** **1 x 8 = 8 Marks**

10. Write about management of vitamin-A, deficiency.

**Section - III** **1 x 8 = 8 Marks**

17. Screening and survey of school children.

**Section - IV** **2 x 4 = 8 Marks**

21. (a) Eye camps  
(b) Industrial Eye Protection

**Section - V** **4 x 2 = 8 Marks**

26. (a) Xerosis  
(b) Trachoma  
(c) Conjunctivitis  
(d) Cataract

**Section - VI**

**Record** **5 Marks**

**Viva** **5 Marks**

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**OPHTHALMIC TECHNICIAN**  
**First Year**  
**PRACTICAL SCHEME OF VALUATION**  
**Subject : Community Ophthalmology & Health Education**  
**Paper - III**

**Time : 3 hours**

**Max. Marks : 50**

**Section - I,II,III Major Questions (1 x 8 = 8 Marks)**

- |                                    |   |         |
|------------------------------------|---|---------|
| 1. Principle / Objective / Purpose | : | 1 mark  |
| 2. Materials                       | : | 1 mark  |
| 3. Procedure / Method              | : | 4 marks |
| 4. Result / Observation / Comment  | : | 2 marks |

**Section - IV (2 x 4 = 8 Marks)**

- |                              |   |         |
|------------------------------|---|---------|
| 1. Purpose / Use / Objective | : | 1 mark  |
| 2. Method / Description      | : | 2 marks |
| 3. Result or Remark          | : | 1 mark  |

**Section - V Identification and Use (4 x 2 = 8 Marks)**

- (a) Conducting outdoor Eye camps
- (b) Conducting Industrial Eye camps
- (c) Conducting School Eye camps
- (d) Old age homes

**Section - VI**

- |               |   |         |
|---------------|---|---------|
| <b>Record</b> | : | 5 Marks |
| <b>Viva</b>   | : | 5 Marks |