



# SRI GURU RAM DAS UNIVERSITY OF HEALTH SCIENCES, SRI AMRITSAR

## DEPARTMENT OF OPHTHALMOLOGY

<b>Theory Paper</b>			
<b>Topics</b>	<b>Marks Distribution</b>	<b>Topics</b>	<b>Marks Distribution</b>
Ethics / Aetcom	5	Glaucoma	10
Embryology & Anatomy	5	Uvea	7
Optic & Refraction	8	Vitreous & Retina	8
Conjunctiva	8	Neuro & Optic Nerve	5
Lid & Adnexa	5	Squint	5
Cornea & Sclera	10	Community Ophthalmology	7
Lens	12	Trauma	5
<b>Total</b>	<b>53</b>	<b>Total</b>	<b>47</b>

**Total Marks 100**



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Guidelines for question paper as per the Medical Council of India, Competency Based Undergraduate Curriculum for Indian Medical Graduate

Theory Paper should include questions from core competencies and not from Non-Core Competency

### BLUEPRINT OF THEORY PAPER

Sr. No	Type	Explanation	Topics	Distribution of marks as per weightage
1.	MCQ	MCQs should be scenario based, single response with 4 options in answers. Avoid one liner and negative terms in stem of question. Avoid 'all of above' and 'none of above' in options.	1. Dense scar of cornea with ulceration of iris tissue is known as a. Adherent Leucoma b. Dense Leucoma c. Ciliary Staphyloma d. Iris	10x1=10
2.	Long Essay Question	1. The question should pose a clinical/ practical problem to the students and require them to apply knowledge and integrate it with disciplines. Avoid giving one liner as questions. 2. The question stem should be structured and marking distribution should be provided. 3. Use action verbs from higher domains as given in this document.	1. A 52-year-old male farmer presented with pain, diminution of vision & watering in his left eye. He reported having injury with rice leaves while working in his fields two week back. On examination, the eye looks congested with large central corneal infiltrate & a dense hypopyon (2*5=10) a. What is your provisional diagnosis? b. Which other condition need to be considered? c. Enumerate the lab tests you will order? d. What are the possible complications of this condition? e. Enumerate various surgical treatment options?  2. Describe the Causes, Clinical Features and Management of Myopia (3+4+3)	2x10=20

3.	Short Notes	<p>These provide opportunity to sample a wider content, albeit in a short time. The questions should be task oriented rather than 'Write a short note on xxx'.</p> <p>Preferably use verbs (as per list attached) in framing questions and structure them as far as possible</p> <p>(One question on AETCOM in all subjects in all phases)</p>	<ol style="list-style-type: none"> <li>1. How will you determine a refractive error in a 5-year-old child</li> <li>2. Differentiate between corneal opacity &amp; corneal edema. Also enumerate their types &amp; management</li> <li>3. What all structures in eye are derived from Neuroectoderm</li> <li>4. Enumerate the causes of Epiphora. Define Lacrimation &amp; Epiphora</li> <li>5. What is the role of Cycloplegics in the management of Corneal Ulcer</li> <li>6. Enumerate various components of Hypermetropia?</li> <li>7. What is the role of retinal function tests in cataract patients?</li> <li>8. Discuss various ethical aspects related to eye donation</li> </ol>	8x5=40
4.	Reasoning Questions	<p>These provide excellent opportunities for testing integration, clinical reasoning and analytic ability of the student.</p>	<ol style="list-style-type: none"> <li>1. What is the significance of Sturm's Conoid? Explain with Diagram</li> <li>2. What are the factors responsible for maintaining transparency of Cornea?</li> <li>3. What is the Pathophysiology of Pterygium? Discuss various management Options</li> </ol>	3X5=15
5.	Short Notes Applied Aspects	<p>(Clinical Subject: questions on preclinical basis)</p>	<ol style="list-style-type: none"> <li>1. Difference between Papillae &amp; Follicles</li> <li>2. Describe the differentiating features between axial and non-axial Proptosis</li> <li>3. Explain the pathophysiological basis of Clinical Features of Orbital Cellulitis</li> </ol>	3X5=15
<b>Total Marks Theory Paper 100</b>				

## BLUEPRINTING IN KNOWLEDGE DOMAIN

**(Representative example only. Actual figures may vary with the subject and phase)**

Level	Topic A	Topic B	Topic C	Topic D	Total
	<b>Long Questions</b>	<b>Short Notes</b>	<b>Reasoning Questions</b>	<b>Short Notes Applied Aspects</b>	
Knowledge	1	1	2	1	5(20%)
Comprehension	1	1	0	2	4(16%)
Application	1	1	1	1	4(16%)
Analysis	1	1	2	1	5(20%)
Synthesis	1	1	0	1	3(12%)
Evaluation	1	1	1	1	4(16%)
<b>Total</b>	6(24%)	6(24%)	6(24%)	7(28%)	25(100%)

### Verbs in various levels in Knowledge domain (Bloom's taxonomy)

Knowledge	Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State, Choose , Indicate, isolate, Order, Recognize, Underline
Comprehension	Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalise, Identify, Illustrate, Interpret, Review, Summarise, Extrapolate, Update
Application	Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use
Analysis	Analyse, Characterise, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorise
Synthesis	Compose, Construct, Create, Verify, Determine; Design, Develop, Integrate, Organise, Plan, Produce, Propose, rewrite
Evaluation	Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritise, Prove, Rank

**The question part of the MCQ (item) is called STEM; correct answer is called the KEY and the rest of the options are called DISTRACTORS.**

**Steps in writing:**

1. Select the specific learning objectives which you want to test.
2. Write the stem, it should be self-explanatory and complete, avoid using terms like (NOT, EXPECT, NEVER, ALWAYS, SOMETIMES) in the stem, if the terms are being used they should be in UPPERCASE and bold letter.
3. Write unambiguous and unarguably the correct answer to the stem.
4. Select the most plausible alternatives and arrange them in the form of options.
5. Avoid window dressing of the stem. This means adding superfluous and unnecessary words which confuses the student.
6. Abbreviations should be avoided.
7. Options should be grammatically parallel to the key, and should be parallel and have the same relation to the stem.
8. When writing options, avoid duplications or making options all inclusive, e 1-6, 6-10 etc.
9. The options should be arranged in rank order, e.g., 256, 266, 280, 290 and not 290, 266, 280, 256.
10. "All the above" and "None of the above" should be avoided as an option.

**Formative & Internal Assessment:** - Internal assessment shall be based on day-to-day assessment. Efforts should be made to use multiple tools even for a given competency to improve validity and reliability of assessment

It shall relate to different ways in which learners participate in learning process which is day to day recorded in record book and log book in the form of:

- a) Assignments,
- b) Preparation for seminar,
- c) Clinical case presentation,
- d) Preparation of clinical case for discussion,
- e) Clinical case study/problem solving exercise participation in project for health care in the community,
- f) Proficiency in carrying out a practical or a skill in small research project etc.

Regular periodic examination shall be conducted throughout the course as per following schedule:

	<b>Theory Internal Assessment (Weightage in the form of marks)</b>	<b>Practical Internal Assessment (Weightage in the form of marks)</b>
1 <sup>st</sup> Assessment test	10	10
2 <sup>nd</sup> Assessment test	10	10
Mid Term test (MT)	20	20
3 <sup>rd</sup> Assessment test	10	10
4 <sup>th</sup> Assessment test	10	10
Send Up test (SU)	20	20
Practical record book	---	10
Attendance	10	5
Professionalism		5
ATCOM	10	
<b>Total</b>	<b>100</b>	<b>100</b>



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## Distribution of Marks: - Ophthalmology

Papers		Maximum Marks	Minimum Passing Marks
Theory (Summative Assessment)		100	At least 50% marks
Practical *(Summative Assessment) (60+40= 100 Marks) 1. Practical/clinical examinations will be conducted in OPD and /or hospital wards. The objective will be to assess proficiency and skills to conduct examination & Management of different clinical situation (pt) 2. Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, identification of specimens, etc. is to be also assessed.	Long Case 20 Short Case 20 Surgical Instruments& Procedures 20 Dark Room Procedures/Refraction 20	80	50% (Practical + Viva)
	Viva (oral examination should focus on the application and interpretation) Photograph Graphs, Instrument, Charts etc.	20	
Internal Assessment (Not added to the marks of the university examinations and should be shown separately in the grade card)	Theory	100	50% Combined in theory and practical (not less than 40% in each for eligibility for appearing for university examination)
	Practical	100	

During practical examinations you are requested to use different methods of assessment tools to improve authenticity. Please refer to competency-based assessment module for UG medical education for more examples of assessment tools.



**SRI GURU RAM DAS UNIVERSITY OF HEALTH SCIENCES, SRI AMRITSAR**

Maximum Marks: 100

**MBBS 3<sup>rd</sup> Professional Part-I Examination**  
**Subject- Ophthalmology (New Scheme)**

Time: 3 Hours

- Notes:**
1. Attempt all questions. Illustrate your answer with suitable diagrams where applicable.
  2. Question No. 1 (Multiple Choice Questions (A-J)) is to be attempted on OMR Sheet in first 15 minutes of the start of exam.
  3. Question No. 2-6 are to be attempted on the main answer book. No supplementary sheet shall be provided.
  4. Students must write QP code in the space provided on OMR sheet as well as on the title page of the main answer book.

**QP Code: MBN305A**

**I. Multiple Choice Questions (MCQs):**

[10X1=10]

1. **Dense scar of cornea with ulceration of iris tissue is known as:**
  - a. Adherent Leucoma
  - b. Ciliary Staphyloma
  - c. Dense Leucoma
  - d. Iris
2. **The color of Fluorescein stain is**
  - a. Orange
  - b. Green
  - c. Blue
  - d. Black
3. **Chalazion is Chronic inflammatory Granuloma if**
  - a. Meibomian Gland
  - b. Sweat Gland
  - c. Zeiss Gland
  - d. Wolfring Gland
4. **All are true about Pannus except**
  - a. Seen in Leprosy
  - b. Not seen in vernal Keratoconjunctivitis
  - c. Seen in Trachoma
  - d. Seen in Chemical Burn
5. **Which eye muscle has radial longitudinal & Circular Fibres**
  - a. Sphincter Papillae
  - b. LPS
  - c. Dilator Papillae
  - d. Ciliary Muscle
6. **Corneal Sensation is lost in which nerve palsy**
  - a. Naso-Ciliary Nerve
  - b. Infra-Trochlear Nerve
  - c. Supra-Trochlear Nerve
  - d. Infra-Orbital Nerve
7. **Right Trochlear nerve palsy, all are present except**
  - a. Right Hypertropian
  - b. Right ex-torsion
  - c. Right Head tilt



d. Diplopia on upper gaze & Adduction

8. Smooth muscle of the iris are derived from

- a. Surface Ectoderm
- b. Neural Crest
- c. Mesoderm
- d. Neuroectoderm

9. Stroma of Cornea forms how much percentage of corneal thickness

- a. 50%
- b. 70%
- c. 60%
- d. 90%

10. All of the following are true about cornea except

- a. Nutrition from Aqueous Humor
- b. Oxygen supply from external environment
- c. Blood supply via minute arcades
- d. Sensory Supply via branches of facial nerve extending 1mm into it from limbus

- II. **A 52-year-old male farmer presented with pain, diminution of vision & watering in his left eye. He reported having injury with rice leaves while working in his fields two week back. On examination, the eye looks congested with large central corneal infiltrate & a dense hypopyon:** [5x2=10]
- a. What is your provisional diagnosis?
  - b. Which other condition need to be considered?
  - c. Enumerate the lab tests you will order?
  - d. What are the possible complications of this condition?
  - e. Enumerate various surgical treatment options.

- III. **Describe:** [3+4+3=10]
- a. Describe the Causes, Clinical Features and Management of Myopia:

- IV. **Give Reason:** [3X5=15]
- a. What is the significance of Sturm's Conoid? Explain with Diagram
  - b. What are the factors responsible for maintaining transparency of Cornea?
  - c. What is the Pathophysiology of Pterygium? Discuss various management Options?

- V. **Write short notes on:** [8X5=40]
- a. How will you determine a refractive error in a 5-year-old child?
  - b. Differentiate between corneal opacity & corneal edema. Also enumerate their types & management
  - c. What all structures in eye are derived from Neuroectoderm
  - d. Enumerate the causes of Epiphora. Define Lacrimation & Epiphora
  - e. What is the role of Cycloplegics in the management of Corneal Ulcer?
  - f. Enumerate various components of Hypermetropia?
  - g. What is the role of retinal function tests in cataract patients
  - h. Discuss various ethical aspects related to eye donation.

- VI. **Write short notes on:** [3X5=15]
- a. Difference between Papillae & Follicles
  - b. Explain the pathophysiological basis of Clinical Features of Orbital Cellulitis
  - c. Describe the differentiating features between axial and non-axial Proptosis.