

**MIZORAM PUBLIC SERVICE COMMISSION**  
**TECHNICAL COMPETITIVE EXAMINATIONS FOR**  
**SENIOR GRADE OF MIZORAM HEALTH SERVICES (SPECIALIST SUB-**  
**CADRE) UNDER HEALTH & FAMILY WELFARE DEPARTMENT,**  
**GOVERNMENT OF MIZORAM, FEBRUARY-2024**

**PAPER-II**  
**(OPHTHALMOLOGY)**

Time Allowed : 3 hours

FM : 200

*All questions carry equal marks of 2 each.*

*Attempt all questions.*

1. The Lens Vesicle developed from the :
  - (a) Mesoderm
  - (b) Surface Ectoderm
  - (c) Neuroectoderm
  - (d) optic vesicle
2. Transparency of the Cornea is maintained by all except:
  - (a) Avascularity
  - (b) Arrangement of cells
  - (c) Endothelial pump
  - (d) Eyelids
3. The lipid layer of the tears is secreted by :
  - (a) Meibomian gland
  - (b) Lacrimal gland
  - (c) Gland of Zeis
  - (d) Vogts striae
4. The cells responsible for perception of colour is
  - (a) Rods
  - (b) Cones
  - (c) Pigmented epithelium
  - (d) Choroidal cells
5. Mechanism of Accommodation is maintained by the
  - (a) Cornea
  - (b) Retina
  - (c) Iris
  - (d) Crystalline Lens
6. Bitemporal Hemianopia is produced by lesion in the
  - (a) Optic Nerve
  - (b) Lateral Geniculate nucleus
  - (c) Central Chiasma
  - (d) Visual Cortex
7. The Physiological Blind spot is due to
  - (a) Glaucoma
  - (b) Optic Disc
  - (c) Nasal Bridge
  - (d) Avascular Retina
8. Aqueous Humour is formed from the
  - (a) Ciliary Processes
  - (b) Uveal Tissue
  - (c) Scleral Spur
  - (d) Zonules
9. The Sieve-like structure through which the Aqueous Humor leaves the eye is
  - (a) Ciliary Body
  - (b) Trabecular Meshwork
  - (c) Schwalbe's line
  - (d) Descemet's membrane

10. The Refractive Index of Cornea is
  - (a) 1.762
  - (b) 1.245
  - (c) 1.376
  - (d) 1.642
11. The thinnest part of the capsule of the Crystalline lens is
  - (a) Anterior
  - (b) Periphery
  - (c) Ligaments
  - (d) Posterior
12. The innermost layer of the Conjunctiva is
  - (a) Adenoid layer
  - (b) Fibrous layer
  - (c) Epithelium
  - (d) Endothelium
13. The active pump mechanism of the cornea lies in the layer of
  - (a) Endothelium
  - (b) Epithelium
  - (c) Stroma
  - (d) Bowman's membrane
14. The mucin layer of the tear film is secreted by the
  - (a) Lacrimal gland
  - (b) Cornea
  - (c) Conjunctiva
  - (d) Limbal stem cells
15. The stability of the tear film is maintained by the
  - (a) Atmospheric pressure
  - (b) lipid layer
  - (c) aqueous layer
  - (d) mucin layer
16. The most common test to detect dry eye is
  - (a) Schirmer test
  - (b) tears electrolytes
  - (c) rose Bengal staining
  - (d) syringing
17. Optic disc cupping with corresponding visual field defect is seen in
  - (a) Cataract
  - (b) Diabetic retinopathy
  - (c) optic neuritis
  - (d) Glaucoma
18. The most common cause of optic neuritis is
  - (a) Idiopathic
  - (b) Demyelinating disorders
  - (c) Toxins
  - (d) Trauma
19. The visual cortex lies on the medial aspect of
  - (a) Occipital lobe
  - (b) Frontal lobe
  - (c) Parietal lobe
  - (d) Medulla
20. The blood supply of the visual pathway is mainly by the
  - (a) Central retinal artery
  - (b) Carotid artery
  - (c) Pial network of vessels
  - (d) Ophthalmic artery
21. Pupillary near reflex consist of all except
  - (a) Pupil constriction
  - (b) convergence
  - (c) accommodation
  - (d) Pupil dilatation
22. Argyll Robertson pupil is commonly caused by
  - (a) Syphilis
  - (b) Retinal trauma
  - (c) Tuberculosis
  - (d) Dengue
23. Papilloedema is an optic disc swelling due to
  - (a) inflammation
  - (b) increased intracranial pressure
  - (c) tumours
  - (d) vascular causes
24. Papilloedema is most commonly associated with tumors arising in
  - (a) Optic canal
  - (b) Optic chiasma
  - (c) Posterior fossa
  - (d) Middle fossa

25. The blood supply of the Lamina cribrosa is by  
(a) choroidal artery (b) cerebral artery  
(c) Optic artery (d) posterior ciliary arteries
26. Dark adaptation is maintained by the  
(a) Rods (b) Cones  
(c) Optic nerve (d) nerve fibre layers
27. The phenomenon where in dim light, all colours are seen grey is called  
(a) Contrast sensitivity (b) Purkinje shift  
(c) dark adaptation (d) light adaptation
28. Electrooculography (EOG) study the function of  
(a) Optic nerve (b) Optic disc  
(c) Retinal pigment epithelium (d) Ganglion cells
29. The nasolacrimal duct opens in the nasal cavity at the  
(a) inferior turbinate (b) middle meatus  
(c) superior meatus (d) inferior meatus
30. The thickest layer of the cornea is  
(a) stroma (b) epithelium  
(c) endothelium (d) bowman membrane
31. The shape of the Crystalline Lens is  
(a) Circular (b) Concave  
(c) Convex (d) Biconvex
32. The Dioptric power of the Crystalline Lens is  
(a) 30 (b) 15  
(c) 45 (d) 40
33. In Hypermetropia, parallel rays of light are focused on  
(a) Retina (b) front of Retina  
(c) behind the Retina (d) Fovea
34. Commonest type of Hypermetropia is  
(a) Axial (b) Curvature  
(c) Index (d) Positional
35. High Myopia is when the refractive error is more than  
(a) 3D (b) 4D  
(c) 5 D (d) 6 D
36. The most common type of Myopia is  
(a) Index (b) Axial  
(c) Curvature (d) High
37. Absence of Crystalline Lens is  
(a) Aphakia (b) Pseudophakia  
(c) Astigmatism (d) Emmetropia
38. Only two images of Purkinje's image is seen in  
(a) Myopia (b) Hypermetropia  
(c) Aphakia (d) Pseudophakia
39. Large Optic Disc is seen in  
(a) Hypermetropia (b) Squint  
(c) Amblyopia (d) Myopia

40. Congenital Myopia is diagnosed at  
(a) Birth (b) Infancy  
(c) 2-3 years of age (d) 5-6 years of age
41. The Astigmatism type when the light rays are focused both in front and behind the retina  
(a) Simple (b) Mixed  
(c) Compound (d) Alternate
42. The Astigmatism type when the horizontal meridian is more curved than the vertical  
(a) Against the rule (b) With the rule  
(c) Oblique (d) Bioblique
43. Two images perceived unequal in size or shape is called  
(a) Anisometropia (b) Diplopia  
(c) Anisocoria (d) Aniseikonia
44. The weakening of Accommodation with age results in  
(a) Cataract (b) Presbyopia  
(c) Amblyopia (d) Aphakia
45. A cycloplegic drug is  
(a) Phenylephrine (b) Tropicamide  
(c) Atropine (d) Acetazolamide
46. Progressive lenses are also known as  
(a) Varifocal lenses (b) Bifocal lenses  
(c) Trifocal lenses (d) Single Vision lens
47. Eligibility Criteria for LASIK are all except  
(a) Above 20 year of age (b) Stable refraction for >1 year  
(c) Thin cornea (d) normal cornea
48. Non surgical method for correcting refractive error by wearing unique contact lens overnight  
(a) SMILE (b) Orthokeratology  
(c) IntraCorneal ring (d) Rose K Lenses
49. Objective method of Refraction is  
(a) Retinoscopy (b) Post mydriatic test  
(c) Snellens chart reading (d) keratometry
50. Subjective method of Refraction is  
(a) Retinoscopy (b) Post mydriatic test  
(c) Snellens chart reading (d) autorefractometry
51. Retinoscopy is done at a distance of  
(a) 10 meters (b) 5 meters  
(c) 1 meter (d) 2 meters
52. The drug correction factor after Atropine retinoscopy is  
(a) 1 D (b) 0.5 D  
(c) 2 D (d) 2.5 D
53. The refractive status of the eye at birth is  
(a) Myopia (b) emmetropia  
(c) hypermetropia (d) astigmatism
54. Presbyopia appears usually after the age of  
(a) 50 years (b) 40 years  
(c) 30 years (d) 55 years

55. Visual Acuity test using a Snellen's chart is done at a distance of  
(a) 1 meter (b) 3 meters  
(c) 5 meters (d) 6 meters
56. Test for confirming refraction subjectively is commonly done with  
(a) Duochrome test (b) Autorefractometer  
(c) Maddox rod (d) trial frame
57. Colour vision test is commonly done with  
(a) Lantern test (b) Ishihara's chart  
(c) topography (d) slit-lamp
58. Against the movement reflex during retinoscopy indicates  
(a) Emmetropia (b) Hypermetropia  
(c) Myopia more than 1 D (d) Myopia of 1 D
59. The end point of neutralization while doing retinoscopy is  
(a) No movement (b) With the movement  
(c) Against the movement (d) White reflex
60. If the shadow appears to swirl around during retinoscopy, it indicates  
(a) Myopia (b) Astigmatism  
(c) Hypermetropia (d) Emmetropia
61. A Patient with diplopia can present with  
(a) redness (b) watering  
(c) Head tilt (d) droopy eyelids
62. Raised eyebrow is commonly seen in  
(a) Ptosis (b) squint  
(c) Cataract (d) Glaucoma
63. Protrusion of the eyeball due to thyroid eye disease is called  
(a) Enophthalmos (b) Exophthalmos  
(c) Proptosis (d) Exophoria
64. Outward turning of the eyelid margin is called  
(a) Entropion (b) Exophoria  
(c) Ectropion (d) squint
65. Inward turning of the eyelid margin is called  
(a) Ptosis (b) Entropion  
(c) Ectropion (d) Esotropia
66. Internal Hordeolum is called  
(a) Stye (b) Conjunctivitis  
(c) Keratitis (d) Chalazion
67. External Hordeolum is called  
(a) Stye (b) Chalazion  
(c) Dacyocystitis (d) Corneal Ulcer
68. Lacrimal sac test is positive in  
(a) Lacrimal fistula (b) Lacrimal gland tumor  
(c) NasoLacrimal duct obstruction (d) Dry eyes
69. Inward turning of the eyelashes is called  
(a) Blepharitis (b) Trichiasis  
(c) Entropion (d) Madarosis

70. Outward turning of the eyeball is called  
(a) Exotropia (b) Esotropia  
(c) Hypertropia (d) Hypotropia
71. Inward turning of the eyeball is called  
(a) Entropion (b) proptosis  
(c) Esotropia (d) Enophthalmos
72. Inability to close the eyelid is  
(a) blepharospasm (b) ptosis  
(c) amblyopia (d) Lagophthalmos
73. Marcus-Jaw Winking Phenomenon is seen in  
(a) Congenital Cataract (b) Congenital Ptosis  
(c) Strabismus (d) Leucocoria
74. Most common eyelid carcinoma in India is  
(a) Basal cell Ca (b) Squamous cell ca  
(c) Sebaceous gland ca (d) Melanoma
75. The opening of tear drainage on the eyelid is  
(a) Punctum (b) Meatus  
(c) canaliculus (d) lacrimal duct
76. Von Graefe's sign is seen in  
(a) Diabetes (b) Graves disease  
(c) Vitamin A deficiency (d) Trachoma
77. Eyelid retraction in Thyroid eye disease is  
(a) Dalrymple's sign (b) Stellwag sign  
(c) Mobius sign (d) Grove sign
78. On normal fundus examination we see the ocular media as  
(a) white glow (b) yellow glow  
(c) red glow (d) black
79. The size of the optic disc is  
(a) 5mm (b) 3mm  
(c) 2mm (d) 1.5mm
80. Shape of the Optic disc is  
(a) circular (b) rectangle  
(c) square (d) triangular
81. Normal Optic cup-disk ratio is  
(a) 1 (b) 0.3  
(c) 0.5 (d) 1.5
82. Cherry red spots is seen in all except  
(a) Berlin's Oedema (b) Central retinal artery occlusion  
(c) Tay-Sach's disease (d) Gout
83. Hard exudates on fundus are seen in all except  
(a) Coat's disease (b) Dry eyes  
(c) Diabetes (d) hypertension
84. Field of view during fundus examination is widest with  
(a) Direct ophthalmoscope (b) Distant direct ophthalmoscope  
(c) Indirect ophthalmoscope (d) retinoscope

85. Distant direct ophthalmoscopy is performed at a distance of  
(a) 1 meter (b) 25 cm  
(c) 50 cm (d) 100 cm
86. The power of the convex lens most commonly used in indirect ophthalmoscopy  
(a) 10 D (b) 5 D  
(c) 20 D (d) 50 D
87. Deep retinal haemorrhages are typically seen in  
(a) Diabetic retinopathy (b) Mature cataract  
(c) Anaemia (d) Downs syndrome
88. Microaneurysms are commonly seen in all except  
(a) Diabetes (b) Hypertension  
(c) Retinal vein occlusions (d) Retinitis pigmentosa
89. Most common malignant tumor of the retina is  
(a) Astrocytoma (b) Retinoblastoma  
(c) Melanoma (d) lymphoma
90. Neovascularization of the retina is seen due to the sequelae of  
(a) Hemorrhages (b) trauma  
(c) ischemia (d) sepsis
91. Whitish fluffy spots with indistinct margins seen on the retina is  
(a) microaneurysm (b) cotton wool spots  
(c) blind spots (d) fovea
92. Retinal function tests include all except  
(a) Biometry (b) Maddox rod test  
(c) Colour perception (d) Two-light discrimination test
93. Electrophysiological studies of the retina includes all except  
(a) Ultrasound (b) Electroretinogram  
(c) Visual Evoked Potential (d) Electrooculogram
94. The most common route of ocular therapeutics is  
(a) intravenous (b) intravitreal injection  
(c) topical (d) intramuscular
95. Most common intravitreal injection given is  
(a) Steroids (b) Anti-VEGF  
(c) Antibiotics (d) Antifungal
96. Increased pigmentation of the Iris is seen with the anti-glaucoma drug of  
(a) Prostaglandin (b) Beta-blocker  
(c) Adrenergic against (d) Carbonic anhydrase inhibitors
97. Retinoscopy in children is best done with  
(a) Phenylephrine (b) Atropine  
(c) Tropicamide (d) Cyclopentolate
98. The most common dyes used to stain the cornea is  
(a) Rose Bengal (b) Trypan blue  
(c) Fluorescein (d) Lissamine green
99. The staining of the lens capsule during cataract surgery is done with  
(a) Trypan blue (b) Methylene blue  
(c) Fluorexone (d) Verteporfin

100. Most common Viscoelastic substance used in intraocular surgery is

- (a) Chondroitin sulfate
- (b) Methylcellulose
- (c) Hypermellose
- (d) sodium hyaluronate

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