

KMCT COLLEGE OF ALLIED HEALTH SCIENCES
MUKKOM, KOZHIKODE, KERALA.
DEPARTMENT OF OPTOMETRY
CEVS QUESTION BANK

SPECIFICATIONS TO ALIGN QUESTION BANK & ANSWER KEYS

ESSAY:

1. Describe different types of prisms. Explain the nomenclature, optics and uses in Ophthalmology.
2. What is keratometry and mention the different types. Describe the optics of manual keratometry.
3. Discuss the optics of indirect ophthalmoscope and describe the advantages of the same in comparison with the direct ophthalmoscope.
4. Outline the principles and details of various types of refractometers.
5. Define retinoscopy. Describe the various techniques of retinoscopy. Mention the currently available types of retinoscopes.
6. Discuss the principle and methods of testing colour vision. Describe any one method of colour vision testing.
7. Define retinoscopy. Describe the various techniques of retinoscopy. What are the currently available types of retinoscopes.
8. Discuss the optics of slit lamp bio microscopy. Add a note on the techniques of slit lamp examination of the anterior and posterior segments of the eye.
9. Explain in detail-
 - The differences between snellen visual acuity and logMAR acuity charts.
 - What are the basics in constructing a logMAR chart" replaced with "Add a note on various types of charts available for near vision testing.
 - The illumination standards for vision examination
10. Explain the normal field of vision. Mention different perimetry techniques. Explain how you do an automated field test in glaucoma.

11. Explain different illumination techniques in slitlamp with optics of each
12. Explain the causes of gradual progressive loss of vision. Explain the necessary clinical examination and tests required in a patient suspected to have primary open angle glaucoma
13. Mention the different techniques of examinations of fundus.
14. Describe the principle of each. How does each technique differ from one another.
15. What is tonometry. Outline the principle, types and techniques of each of them.
16. A young contact lens user complaints of irritation in both eyes that persist even with his new disposal lens set. The optometrist suspected a tear film deficiency in this patient and performed examination.
 - Explain basal and reflex tear secretion.
 - Explain the test that would help document the patient's condition.
 - List which of this test is screening and which are confirmatory.
17. Explain visual acuity and its components. Differentiate between Snellen visual acuity chart from log MAR visual acuity chart.
18. Enumerate different types of tonometers. Describe the techniques, advantages and disadvantages of any two methods.
19. What are the components of vision. How will you assess visual acuity in pre-school children.
20. What is visual acuity and what are its different components. Describe different methods of assessing visual acuity in children below 5 years.
21. Describe the different methods of tonometry illustrating the advantages and disadvantages of each.
22. Describe different techniques of visual field charting .
23. Enumerate the principles of objective autorefractometers. List the advantages and disadvantages of autorefractometry.
24. Discuss examination of the pupil. Describe the abnormal pupillary reactions.
25. Discuss the various methods of visual acuity testing. What are the methods of testing color vision .
26. Define visual field. Discuss different methods of field charting

27. Outline the principles and details of various types of refractometers.
28. Define retinoscopy. Describe the various techniques of
29. retinoscopy. What are the currently available types of retinoscopes.
30. What is visual field and mention the different components. Describe different methods of field charting.
31. Describe the different methods of tonometry and list the advantages and disadvantages of each.
32. Discuss the principle of Snellen's chart. Add a note on various types of charts available for distance and near vision testing.
33. Describe various methods of fundus examination and the principle of each. What are the advantages and disadvantages of each of them.
34. What are the different methods of tonometry. List the advantages and disadvantages of each.
35. Discuss the various methods of visual acuity testing. What are the methods of testing colour vision.
36. Discuss the different methods and indications for evaluation of field of vision.
37. Describe different techniques of tonometry. Mention the principles, advantages and disadvantages of each.
38. What is low vision. Describe the different types of low vision aids.
39. What are the components of slitlamp biomicroscope and explain the various illumination techniques in slit lamp. Write about any five principal dyes currently used in ocular examinations.
40. Describe the principles of retinoscopy. What are the types of retinoscopes. Explain how you will do streak retinoscopy.
41. Describe various methods of fundus examination and the principle of each. What are the advantages and disadvantages of each of them.
42. Describe the angle of the anterior chamber and discuss the methods of assessment of intra ocular pressure.

SHORT NOTES:

1. Slit lamp bio microscopy for fundus
2. Applanation tonometry
3. Kinetic perimetry

4. Cover tests
5. B scan
6. Describe 90 D lens and its use
7. Enumerate the different types of illuminations used in the evaluation of anterior segment by slit lamp.
8. Discuss the principles and techniques of external eye photography
9. What is the principle of external eye photography
10. What is perimetry and mention the different types.
11. Outline the technique of using prism bar
12. Describe the different types of ultrasonography.
13. Define low vision and mention different types of low vision aids
14. Describe the optics of direct ophthalmoscopy with diagrams.
15. Discuss the techniques of objective optometers.
16. Discuss the normal light reflex of the pupil. Add a note on swinging flash light test
17. What is Visual acuity? Briefly describe the methods to measure Visual acuity
18. What is perimetry. Mention the different types.
19. Outline the technique of using prism bar
20. Describe the technique of streak retinoscopy with diagrams.
21. Discuss the techniques of photography of the anterior segment of the eye.
22. Discuss the methods of evaluation of the posterior segment in the presence of a hazy media
23. How to measure stereopsis and what is the clinical importance of it
24. Explain the procedures involved in objective refraction
25. Explain Macular function test
26. Discuss evaluation of dry eye
27. Discuss uses of sodium fluorescein dye
28. Discuss about macular function test
29. Evaluation of watering of eyes
30. Tonometry
31. Discuss various methods for measuring stereopsis.
32. Discuss low vision aids
33. Discuss evaluation of watering of eye

34. Keratometry
35. Mention the salient points in the history taking of a case of corneal ulcer 4. Describe the various tests of color vision.
36. How do you examine ocular motility of the eye.
37. How do you test and write the report for the patency of lacrimal system.
38. What is ultrasonography in ophthalmology. Mention the types.
39. What are the advantages of Phoropter over trial lens kit.
40. Explain the importance of pupillary assessment and name two disease condition where it would be useful.
41. Compare Snellen vs logMAR visual acuity.
42. Explain the principle of applanation tonometer. Write its advantage over Schiötz tonometer.
43. Enlist the various illumination techniques in slit lamp and explain the specular reflection & sclerotic scatter.
44. Explain the Glaucoma hemifield test in detail.
45. How will you take history in a patient presented with defective vision.
46. Examination of lacrimal system.
47. Compare direct and indirect ophthalmoscopy.
48. Humphry field analyzer.
49. Color vision tests.
50. Diplopia charting
51. Duo chrome test
52. A- scan
53. Uses of prisms in ophthalmology
54. Lensometer
55. How will you take history in a patient presented with defective vision
56. Examination of lacrimal system.
57. Methods colour vision testing.
58. Synoptophore.
59. Muscle balance tests .
60. Discuss B scan examination of the eye.
61. Describe the principle and types of tonometry

62. Importance of family history in eye diseases
63. Retinoscopy
64. Maddox rod
65. Pachymetry
66. Difference between direct and indirect ophthalmoscopy
67. Bagolini striated glasses
68. What is the principle of external eye photography
69. What is perimetry and mention the different types.
70. Outline the technique of using prism bar
71. Describe the different types of ultrasonography.
72. Define low vision. Mention different types of low vision aids
73. Muscle balance tests
74. Tests for colour vision
75. How will you calculate IOL power.
76. Low vision aids
77. Lensometer
78. Discuss biometry
79. Dynamic retinoscopy.
80. What are the various methods of fundus examination.
81. Near vision charts
82. Gonioscopy
83. Streak retinoscopy
84. Uses of prism
85. Bagolini striated glasses
86. Retinoscopy
87. Maddox rod
88. Applanation tonometry
89. Describe the optics of lensometry with diagrams.
90. Discuss the technique of applanation tonometry.
91. Discuss the methods of evaluation of the accommodation and convergence
92. Snellen's charts
93. Tests for BSV

94. Optics of manual keratometry.
95. Cover tests
96. Describe the nomenclature and uses of prisms in ophthalmology
97. Explain the classification of colour vision defect. Briefly explain the tests for colour vision
98. Full form of IPD. Write down the procedure for IPD measurement (Distance & near) using PD ruler.
99. Applanation Tonometry.
100. Discuss A scan ultrasonography
101. Discuss Applanation tonometry
102. Examination of muscle balance
103. Near vision charts
104. Gonioscopy
105. Streak retinoscopy
106. Discuss direct ophthalmoscope.
107. Discuss anterior segment evaluation by slit lamp.
108. Discuss fundus camera

ANSWER BRIEFLY:

1. Different types of retinoscopes
2. Colour vision charts. 3.Trial frames 4.Gonioscopes 5.Lensometer
3. RAF rule
4. Snellens chart
5. Placido's disc
6. OCT
7. Pachymetry
8. Describe applanation tonometry
9. Principle of auto refractometer
10. What is keratometry. Enumerate two methods of keratometry
11. RAF (Royal air force) rule
12. Farnsworth Munsell hundred hue test
13. Describe the technique of examination of cornea by slit lamp.
14. Outline the methods of examination of pupil.

15. Outline the design of a trial frame.
16. Outline the principle of direct ophthalmoscope.
17. Non-contact lenses for fundus examination.
18. Describe the uses of B scan.
19. Explain the techniques and use of RAF rule.
20. Different types of gonioscopes.
21. What is the use of amsler grid.
22. Astigmatic fan
23. Principle of Snellen's visual acuity chart.
24. Uses of ultrasound A scan
25. Indications for CT scan of the orbit
26. Uses of bagolini striated glass
27. Uses of prisms in the examination of the eye.
28. Describe the technique of examination of cornea by slit lamp.
29. Outline the methods of examination of pupil.
30. Outline the design of a trial frame.
31. Outline the principle of direct ophthalmoscope
32. Non-contact lenses for fundus examination
33. Principle of Snellen's chart
34. Principle of gonioscopy
35. Uses of RAF rule (Royal Air Force Rule)
36. Uses of keratometer
37. Technique of lacrimal syringing test.
38. List the various methods for fundus examination
39. Explain the slitlamp technique used to evaluate the corneal endothelium
40. Types of ERG
41. What are the two most important birth history to be obtained during pediatric history taking
42. Explain the significance of nausea or vomiting sensation while reporting a headache history
43. Types of retinoscopes
44. Bagolini striated glasses

45. Types of Gonioscopy
46. Maddox rod
47. Marcus Gunn pupil
48. Different methods of Fundus Examination
49. Goldmann 3 mirror contact lens
50. Confrontation test
51. Components of trial case.
52. Phoropter
53. RAF rule
54. Examination of muscle balance
55. Maddox rod
56. Colour vision charts
57. Assessment of near vision
58. Describe the techniques of examination of vision of a two year old child.
59. Explain the different types of examination techniques under a slit lamp.
60. What is retinoscopy. What are the different techniques.
61. What is automated perimetry and how it differs from manual perimetry.
62. What are uses of amsler grid.
63. What is keratometry. Describe the technique of keratometry.
64. Mention the various parts of a trial frame and mention its uses.
65. What is best form lenses.
66. What is maddox rod used for. Describe the technique.
67. What is the principle of a refractometer and mention the types.
68. List two test used to measure stereopsis among preschool Children (3-6 yrs).
69. Explain ROPLAS.
70. List two disease conditions where visual field is reduced.
71. What is the principle behind pinhole.
72. Explain the need for measuring inter pupillary distance
73. What is lens guage and what measurement is taken with lens guage.
74. What is Scheiner's principle.
75. Differentiate plane mirror retinoscopy from concave mirror retinoscopy and write its indications.

76. Name few color vision charts designed based on pseudoisochromatic principle.
77. K1: 45.50D @10; K2: 49.00D@100. Comment on keratometry readings.
78. Maddox wing
79. Prism bar
80. Phoropter
81. Cross cylinder
82. Duochrome test
83. RAF rule
84. Bjerrum's screen
85. Dynamic retinoscopy
86. Placido's disc
87. Bagolini striated glass
88. Trial frame
89. Pinhole
90. Jackson's cross cylinder
91. inter pupillary distance
92. Streak retinoscope
93. Amsler grid
94. Maddox wing
95. Pachymeter
96. Examination of pupil
97. Advantages of indirect ophthalmoscopy
98. Maddox rod
99. Prism bar
100. 10. Phoropter
101. Astigmatic fan
102. Hirschberg's test
103. Structures in the angle of anterior chamber
104. Non-contact tonometers.
105. Dynamic retinoscopy
106. Placido's disc
107. Bagolini Striated glass

108. Describe schirmer's test
109. Describe phoropter
110. Describe the Snellens visual acuity chart.
111. Confrontation test.
112. Enumerate four methods of examination of the fundus
113. Uses of prism
114. Axial biometry
115. Uses of amsler grid
116. RAF rule
117. Principle of keratometry 118.Gonioscopes
118. Trial frame design
119. Principle of lensometer
120. Slit lamp biomicroscopy
121. Fresnel prism
122. Describe the technique of examination of cornea by slit lamp.
123. Outline the methods of examination of pupil.
124. 125.Outline the design of a trial frame.
125. 126.Outline the principle of direct ophthalmoscope ..
126. 127.Non contact lenses for fundus examination.
127. Describe the uses of B scan.
128. Explain the techniques and use of RAF rule.
129. Different types of gonioscopes.
130. What is the use of amsler grid. 132.Mention four low vision aids
131. Trial frame
132. Near vision charts
133. Fresnel prisms
134. Gonioscopes
135. Streak retinoscope
136. Amsler grid
137. Maddox rod
138. Pachymeter
139. Examination of pupil

140. Methods of illumination in slit lamp
141. What is perimetry and name the types
142. What is gonioscopy. What are the requirements for gonioscopy
143. What is ultrasound B scan and mention its indications
144. What is Automated Refractometry and mention its advantages
145. What is lensometer. What are the advantages and disadvantages.
146. Mention the method of examination of angle of anterior chamber
147. Uses of pachymetry. 151.Lacrimal syringing technique
148. Mention the relevant points in history taking in a case of corneal ulcer
149. Macular function tests
150. What are the methods of testing visual acuity in children
151. What is the ideal setting for vision examination in a consulting space
152. Uses of B scan
153. Mention the various low vision aids 158.How do you examine ocular motility
154. Uses of prism
155. Axial biometry
156. Uses of Amsler grid
157. RAF rule
158. Principle of keratometry
159. Principle of pin hole testing
160. Design of the trial frame
161. Uses of Maddox rod
162. Principle of biometry
163. Uses of ultrasound B scan.
164. Inter pupillary distance
165. Color vision charts. 172.Trial frames 173.Gonioscopes 174.Lensometer 175.RAF rule176.Bjerrum screen 177.Placido's disc 178.Jone's dye test 179.FRIEND test
166. Explain the implication of the worth four dot test, if only three green light is seen by the patient
167. List down the contra indication for pupil dilation.
168. List the common test used for assessing corneal health
169. Provide full form of the abbreviation PERRLA

170. Name any four visual acuity charts used in pediatric population
171. Examination of proptosis
172. Macular function tests
173. Amsler grid
174. Afferent pupillary defect
175. Bjerrum screen
176. Titmus Fly test
177. Principle of Goldmann applanation tonometer.
178. Lacrimal syringing technique
179. Mention the relevant points in history taking in a case of corneal ulcer
180. Macular function tests
181. Enumerate the colour vision tests.
182. 196 Describe the automated static perimetry.
183. Describe the Maddox rod and its uses.
184. Describe lacrimal syringing.
185. Describe relative afferent pupillary defect

ONE WORD ANSWER:

1. Corneal endothelial cell count is measured by
2. Scan is contra indicated in intraocular foreign body.
3. Two tests for patency of nasolacrimal duct.
4. One test for detecting dry eye.
5. Proptosis is measured using.....
6. Commonest chart used for assessment of distant visual acuity is ---
7. Mention one macular function test in patients with opaque media
8. Mention one orthoptic instrument -----
9. Temporal extent of the normal visual field is degrees
10. Extent of the field assessed with amsler grid is degrees
11. CC cards is used at distance.
12. Lensometer is used for
13. One technique of color vision testing
14. Bagolini striated glass is used for
15. History of seeing colored haloes is important in

16. One indication for scleral indentation during indirect ophthalmoscopy is
17. is the principle of applanation tonometry. The magnification obtained in indirect ophthalmoscopy is
18. The normal thickness of the central cornea is
19. One indication for the use of Amsler grid is
20. CC cards is used at distance.
21. Lensometer is used for
22. One technique of colour vision testing
23. Bagolini striated glass is used for
24. History of seeing coloured haloes is important in
25. One contra-indication for MRI of the eye in case of ocular trauma is
26. One cause for keratitis which is associated with diminished corneal sensation is
27. The colour vision test which is useful in screening congenital colour blindness is
28. The choice of charts for testing visual acuity in illiterates is
29. One indication for the use of Maddox wing is
30. Optical section is used to assess flares and cells in a evaluation
31. Modified test is used to measure phoria in patient with
32. binocular vision anomalies
33. Reduced tear meniscus level would be noted in patient with syndrome
34. The pupil will dilate while fixating at a object
35. Ishihara colour vision test is effective for testing
36. Scissor shadow in retinoscopy is classically seen in
37. The image formed by a prism is displaced towards of the prism
38. In duochrome test, myopes see coloured letters better than
39. Lensometer is used for
40. SRK formula is used to calculate
41. Placido disc is used to diagnose
42. Name two near vision charts
43. ERG testing in nightblindness is used to diagnose
44. Amsler grid is used for testing
45. Commonest colour vision defect is

46. Corneal curvature is measured by
47. Erect magnified image is seen with
48.Ophthalmoscope
49. The refractive error in aphakia is
50. The size of image by 78 D lens is than by 90 D lens.
51. The axial length by A scan appears to be in silicone oil filled eyes
52. CC cards is used for
53. Prism bar is used for
54. 53. RAF is used for
55. One example of a low vision aid.....Bjerrum screen is used for
56. visual acuity chart cannot be used in various distances.
57. Tear film break up time of greater than secs is considered normal.
58. Hirschberg test shows one of the reflex at the limbal margin, prism diopter is the estimated deviation.
59. A young child with significant exophoria would mostly have refractive error.
60. A patient with visual acuity of 6/60 for distance and a near acuity of N6 would haveuncorrected refractive error
61. In indirect Ophthalmoscopy examining eye is made (myopic/hypermotropic)
62. The instrument measures the axial length of the eye.
63. The test used to examine the quality of tear film is
64. Exophthalmometer measures.....
65. In slit lamp, the fundus examination is performed with the help of
66. One formula for IOL power calculation.
67. Name one indirect gonioscope.
68. One device used for measuring retinal nerve fiber thickness.
69. Instrument used for measuring central corneal thickness.
70. is used for detecting posterior segment pathology in opaque media
71. Two tests for contrast sensitivity are and
72. Scissor shadow is seen in
73. Near point of convergence is measured by

74. Name two near vision charts
75. Mention two types of clinical interferometers
76. Normal intraocular pressure
77. Name one indirect gonioscope.
78. One device used for measuring retinal nerve fiber loss.
79. Instrument used for measuring central corneal thickness.
80. Two disadvantages of direct ophthalmoscopy
81. Hemianopia indicates
82. Central visual field includes degrees
83. Pachymetry is assessment of
84. Parasympathetic supply to the iris comes from
85. Opacification of the transparent lens is known as
86. Schirmer test is done for detecting
87. 87. Purpose of interferometry is
88. 88. Maddox wing is used for
89. 89. Specular reflection is used for
90. 90. Oil droplet sign is seen in
91. 91. CC cards is used at distance.
92. Lensometer is used for
93. 93..One technique of colour vision testing
94. . Bagolini striated glass is used for
95. History of seeing coloured haloes is important in
96. Schirmer test is done for detecting
97. Scissor shadow is seen in
98. Maddox wing is used for
99. Two tests for visual acuity in pre-school children
100. Mention the purpose of interferometry synaptophore
101. Name the uses of Maddox wing 103.Accommodation reflex
102. Schirmer's test 14.Convergence
103. Perkins tonometer is a type of
104. Specular reflection is used for examination of
105. 90 D lens is used for

106. Bjerrum screen is used for
107. Amsler grid is used for
108. Schirmer test is done for detecting
109. Principle of interferometry is used in
110. Maddox Wing is used for
111. Specular reflection is used for
112. Oil droplet sign is seen in
113. One contra-indication for instilling a cycloplegic eye drop is
114. One indication of duochrome test is
115. One cause for deep anterior chamber is
116. The normal radius of curvature of the anterior surface of the cornea is
117. One indication for the use of synoptophore is
118. Corneal endothelial cell count is measured by
119. scan is contra indicated in intraocular foreign body.
120. A scan is used to measure.....
121. One test for detecting dry eye.
122. Two uses of convex lens
123. Aesthesiometer is the instrument to test -----
124. van Herick grade of greater than grade is considered as normal or open angle
125. Number of colored caps present in Fransworth D-15 test is
126. An intraocular pressure of greater than mm Hg is a risk factor for glaucoma
127. Tropicamide plus eye drop produces very good effect
128. Aesthesiometer is the instrument to test
129. van Herick grade of greater than grade is considered as normal or open angle
130. Number of colored caps present in Fransworth D-15 test is
131. An intraocular pressure of greater than mm Hg is a risk factor for glaucoma
132. Tropicamide plus eye drop produces very good effect
145. Perkins tonometer is a type of

133. Specular reflection is used for examination of
134. 90 D lens is used for
135. Bjerrum Screen is used for
136. Phorias at near is measured with
137. Axial length of the eye ball is measured by
138. Best method of assessment of ocular deviation is by
139. Blind spot in the field of vision represents
140. Mention one macular function test
141. Measurement of phorias for near is done with

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