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## Question Booklet Alpha Code



Total Number of Questions: 100
Time : 75 Minutes

Maximum Marks : 100

## INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. A, B, C \& D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. Each correct answer carries 1 mark and for each wrong answer $1 / 3$ mark will be deducted. No negative mark for unattended questions.
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

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1. The circumcorneal congestion of eyeball is due to dilatation of
A) Anterior conjunctival vessels
B) Posterior conjunctival vessels
C) Anterior ciliary vessels
D) Posterior ciliary vessels
2. The corneal epithelium is
A) Simple cuboidal
B) Simple columnar
C) Stratified squamous
D) None of the above
3. Normal endothelial count of the cornea is
A) $250 \mathrm{cells} / \mathrm{mm}^{2}$
B) $2500 \mathrm{cells} / \mathrm{mm}^{2}$
C) 5000 cells $/ \mathrm{mm}^{2}$
D) None of the above
4. Normal depth of the middle part of the anterior chamber is
A) 0.5 mm
B) 1 mm
C) 2.5 mm
D) 5 mm
5. Corneal epithelium develops from
A) Surface ectoderm
B) Mesoderm
C) Neural crest
D) Neural ectoderm
6. Which is not true regarding iris ?
A) The iris is thinnest at its attachment to the ciliary body
B) The stroma is covered on its posterior surface by two layers of epithelium
C) Dilator pupillae is arranged radially near the root of the iris
D) Sphincter pupillae is supplied by the sympathetic nervous system
7. Sensory supply of iris is
A) II cranial N
B) III cranial N
C) IV cranial N
D) V cranial N
8. Which is the vascular coat of the eyeball ?
A) Sclera
B) Choroid
C) Retina
D) Tenon's capsule

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9. The weakest wall of the orbit is
A) Superior wall
B) Inferior wall
C) Medial wall
D) Lateral wall
10. All are filamentous fungi except
A) Aspergillus
B) Fusarium
C) Candida
D) Penicillium
11. Bipolar cells are situated in which layer of the retina?
A) Outer nuclear layer
B) Inner nuclear layer
C) Outer plexiform layer
D) Inner plexiform layer
12. The posterior end of which muscle insertion almost overlies the macula?
A) Superior oblique muscle
B) Inferior oblique muscle
C) Superior rectus muscle
D) Lateral rectus muscle
13. Lateral part of superior orbital fissure transmits the following structures except
A) Oculomotor N
B) Lacrimal N
C) Frontal N
D) Trochlear N
14. Action of superior rectus is
A) Elevation, adduction, intorsion
B) Elevation, abduction, intorsion
C) Elevation, adduction, extorsion
D) Elevation, abduction, extorsion
15. Which gland is situated in the tarsal plate?
A) Zeis gland
B) Gland of moll
C) Kraure' gland
D) Meibomian gland
16. All of the following muscles have two arteries to supply except
A) Medial rectus
B) Lateral rectus
C) Superior rectus
D) Inferior rectus
17. Normal flora of the conjunctival sac consists of
A) Staphi epidermidis
B) Diphtheroids
C) Neisseria catarrhalis
D) All of the above
18. Extended wear contact lens wearers are prone for corneal infection caused by
A) Nocardia
B) Aspergillus
C) Acanthamoeba
D) Haemophilus
19. Yoke muscle of superior rectus is
A) Inferior rectus
B) Inferior oblique
C) Superior oblique
D) None of the above
20. The refractive index of cornea is
A) 1.237
B) 1.376
C) 1.427
D) 1.473
21. A convex lens of +2.0 diopters has a focal distance of
A) 2 m
B) 0.5 m
C) 2 cm
D) 0.5 cm
22. In Jackson's cross cylinder, the combination is
A) Spherical component is half the strength and opposite power of the cylinder
B) Cylinder is half the spherical strength and opposite power of the sphere
C) Both are equal in strength and opposite in power
D) None of the above
23. Scissor shadow is seen in
A) Corneal scarring
B) Keratoconus
C) Irregular astigmatism
D) All of the above
24. Light rays passing through a prism are deviated
A) towards apex
B) towards base
C) through the base
D) none of the above

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25. The refractive index of the lens nucleus is
A) 1.386
B) 1.41
C) 1.39
D) 1.389
26. The maximum limit of difference in image size between the two eyes which can be tolerated is
A) $1 \%$
B) $5 \%$
C) $8 \%$
D) $10 \%$
27. Towards the point of reversal in retinoscopy
A) the nodal point of the observer tends to coincide with the far point of the subject
B) the far point of the observer tends to coincide with the nodal point of the subject
C) the movement of the retinoscopy reflex becomes slower
D) none of the above
28. Cycloplegics
A) stimulate accommodation
B) inhibit accommodation
C) blur distant vision
D) produce miosis
29. The angle of incidence for which the angle of refraction is $90^{\circ}$ is called
A) The angle of refraction
B) Critical angle
C) Axial ray
D) Critical ray
30. Which among the following is not a cycloplegic ?
A) Atropine
B) Homatropine
C) Cyclopentolate
D) Phenylephrine
31. For every 1 mm change in the radius of curvature of cornea, the refraction changes by
A) 4 dioptre
B) 5 dioptre
C) 6 dioptre
D) 8 dioptre
32. Image formation at different distances in the two principal meridians is called
A) Presbyopia
B) Emmetropia
C) Astigmatism
D) Myopia
33. The amount of hypermetropia which may be overcome by accommodation is
A) Latent hypermetropia
B) Facultative hypermetropia
C) Manifest hypermetropia
D) None of the above
34. Spherical aberration is eliminated in
A) Periscopic lenses
B) Meniscus lenses
C) Aplanatic lenses
D) All of the above
35. De-centering of lenses is useful in
A) Asymmetrical face
B) Correction of squint
C) For near work
D) All of the above
36. 10 L power calculation depends on all except
A) Axial length of eye
B) Anterior chamber depth
C) Keratometry values
D) Corneal thickness
37. Indication for use of cycloplegics in refraction include
A) in children
B) in convergent squint
C) with sparm of accommodation
D) all of the above
38. The hypermetropia which is unmasked by cycloplegics is called
A) Absolute hypermetropia
B) Manifest hypermetropia
C) Total hypermetropia
D) Latent hypermetropia

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39. Advantages of contact lenses over spectacles
A) Greater field of vision
B) Cosmetically acceptable
C) Aberrations associated with spectacles eliminated
D) All of the above
40. Shortest acting cycloplegic is
A) Phenylephrine
B) Tropicamide
C) Homatropine
D) Cyclopentolate
41. Image magnification is direct ophthalmoscopy
A) 2 times
B) 5 times
C) 10 times
D) 15 times
42. A concave lens always produces a $\qquad$ image of the object.
A) Real, inverted and diminished
B) Virtual, erect and diminished
C) Real, inverted and magnified
D) Virtual, erect and magnified
43. Total diopteric power of the eye
A) +15 dioptre
B) +43 dioptre
C) +58 dioptre
D) +70 dioptre
44. Aniseikonia is due to
A) Spherical aberration
B) Chromatic aberration
C) Unequal size of ocular images
D) Unequal image clarity
45. The bending of light rays around the aperture of a pinhole is due to
A) Refraction
B) Dispersion
C) Diffraction
D) Reflection
46. Wavelength of visible light is
A) $397-723 \mathrm{~nm}$
B) $350-750 \mathrm{~nm}$
C) $293-710 \mathrm{~nm}$
D) $305-795 \mathrm{~nm}$
47. Image formed by a convex mirror irrespective of the place of object is
A) Virtual, erect and diminished
B) Virtual, erect and magnified
C) Real, inverted and diminished
D) Real, inverted and magnified
48. Following are used for nomenclature of prisms
A) Centrad
B) Prism dioptre
C) Angle of deviation
D) All of the above
49. If the object is at infinity in front of a convex lens an image is formed at the
A) Infinity
B) Centre of curvature
C) Focal point
D) Between centre of curvature and focal point
50. In a Sturmsconoid with vertical meridian more curved than the horizontal meridian the image formed at point $B$ is
A) Oval ellipse
B) Horizontal line
C) Vertical line
D) Circle
51. Bausch and Lamb keratometer works on the principle of
A) Variable image size and variable object size
B) Variable object size and constant image size
C) Constant object size and variable image size
D) Constant object size and constant image size
52. The maximum power of cylinder in an usual trial set is
A) 9 dioptre
B) 4 dioptre
C) 5 dioptre
D) 6 dioptre

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53. Scheiners principle is used in
A) Keratometry
B) Phoropter
C) Autorefractometer
D) Streak retinoscopy
54. Which is not true about Duochrome test?
A) It is based on chromatic aberration
B) It is a subjective method of refraction
C) Red and green goggles are necessary
D) The normal human eye is myopic for blue colour
55. False about Jacksons cross cylinder
A) It is used to check the accuracy of axis and power of cylinder
B) The principle of oblique cylinders is used to check the axis
C) The cylindrical power is half the power of the sphere
D) The handle is set at an angle of 45 degree from the axis of the cylinder
56. Rigid intraocular lens is made up of
A) Acrylic
B) PMMA
C) Silicon
D) Hydrogel
57. SRK formula is
A) $P=A-2.5 L-0.9 K$
B) $P=A+2.5 L+0.9 K$
C) $P=A+0.9 K-2.5 K$
D) $P=A-0.9 K-2.5 L$
58. Synaptophore is used to
A) Measure objective and subjective angles of squint
B) Assess degrees of binocular single vision
C) All of the above
D) None of the above
59. Following are limitations of aphakic glasses except
A) Roving ring scotoma
B) Image magnification by $30 \%$
C) Accommodation is present
D) Spherical aberration produces pin cushion effect
60. Pupilometer is used to
A) Check inter pupillary distance
B) Pupil reaction
C) Relative afferent pupillary defect
D) Pupil size
61. The usual pantoscopic tilt of spectacles is around
A) $15^{\circ}$
B) $7^{\circ}$
C) $20^{\circ}$
D) $25^{\circ}$
62. Most commonly used broad spectrum topical antibiotic is
A) Moxifloxicin
B) Levofloxicin
C) Gentamicin
D) Tobramycin
63. The usual size of pinhole is
A) 1.2 mm
B) 3 mm
C) 0.5 mm
D) 1.5 mm
64. Instrument used to assess the shape of anterior surface of cornea is
A) Retinoscope
B) Phoropter
C) Placidosdisc
D) Ophthalmoscope
65. RAF rule is used for all except
A) Near point of accommodation
B) Near point of convergence
C) Orthoptic exercises
D) Pupil size
66. The most accurate method of intraocular pressure measurement is
A) Schiotz tonometer
B) Tonopen
C) Goldman Applanation tonometer
D) Perkins tonometer
67. The most preferred technique of automated perimetry is
A) Goldmann perimetry
B) Octopus perimetry
C) Listers perimetry
D) Humphrey field analyser

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68. Ectatic cicatrix of cornea in which iris is incarcerated is known as
A) Leucoma
B) Adherent leucoma
C) Anterior staphyloma
D) Macula
69. Antifungal drug used for corneal ulcer
A) Natamycin
B) Acyclovir
C) Gentamicin
D) Ganciclovir
70. Prostaglandin analogue used for treatment of primary open angle glaucoma
A) Brimonidine
B) Latanoprost
C) Dorzolamide
D) Brinzolamide
71. Follicles in conjunctiva are seen with all except
A) Trachoma
B) Viral conjunctivitis
C) Spring catarrh
D) Pilocarpine
72. Strongest cycloplegic mydriatic drug is
A) Atropine
B) Homatropine
C) Cyclopentolate
D) Tropicamide
73. The most common cause of bilateral proptosis is
A) Pseudotumor
B) Lymphoma
C) Thyroid eye disease
D) Secondaries
74. All are causes of ptosis except
A) Third nerve palsy
B) Horners syndrome
C) Lidtumors
D) Coloboma lid
75. Probing is done for
A) Chronic dacryocystitis
B) Congenital nasolacrimal duct obstruction
C) Acute dacryocystitis
D) Mucocoele of lacrimal sac
76. Following are fungi causing corneal ulcer except
A) Candida
B) Fusarium
C) Aspergillus
D) Staphylococcus
77. Following are causes of optic disc oedema except
A) Papilloedema
B) Central retinal venous occlusion
C) Optic atrophy
D) Optic neuritis
78. Total number of layers in retina
A) 10
B) 8
C) 11
D) 12
79. All of the following are age related acquired cataract except
A) Cortical cataract
B) Posterior subcapsular cataract
C) Lamellar cataract
D) Nuclear cataract
80. All of the following are associated with acute anterior uveitis except
A) Cells
B) Flare
C) Keratic precipitates
D) Choroiditis
81. Angle of anterior chamber is visualised by
A) Tonometry
B) Gonioscopy
C) Slit lamp biomicroscopy
D) Ophthalmoscopy
82. Which among the following are grade of Binocular single vision?
A) Simultaneous perception
B) Fusion
C) Stereopsis
D) All of the above
83. Manifest divergent squint is
A) Esotropia
B) Exotropia
C) Esophoria
D) Exophoria
84. The most common type of Amblyopia among the following is
A) Strabismic amblyopia
B) Meridional amblyopia
C) Ametropic amblyopia
D) Stimulus deprivation amblyopia

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85. Angle between optical axis and pupillary axis is known as
A) Angle kappa
B) Angle gamma
C) Angle alpha
D) Angle delta
86. Most severe chemical injuries occur with
A) Inorganic acids
B) Alkali
C) Salts
D) Organic acids
87. Rosette shaped cataract is seen in
A) Penetrating trauma
B) Blunt trauma
C) Rupture globe
D) Perforating trauma
88. The type of retinal detachment which occurs following retinal tears or holes is
A) Rhegmatogenous
B) Exudative
C) Tractional
D) All of the above
89. Laser photocoagulation is done for which of the following stage of Diabetic retinopathy?
A) Mild non proliferative
B) Moderate non proliferative
C) High risk proliferative
D) Tractional detachment
90. Bifocals are prescribed in which type of squint?
A) Exotropia for distance
B) Esotropia for distance
C) Esotropia for near
D) Exotropia for near
91. Who is the Chairman of District Blindness Control Society?
A) District Magistrate
B) District Collector
C) Chief Medical Officer
D) Civil Surgeon
92. Vision 2020 aims to bring down blindness to how much percentage by the year 2020?
A) $1 \%$
B) $0.3 \%$
C) $0.75 \%$
D) $2.2 \%$
93. Post mortem enucleation for corneal transplantation should be ideally done within how many hours of death ?
A) 8-12 hours
B) 4-6 hours
C) 10-12 hours
D) 24 hours
94. The year in which NPCB was launched in India
A) 1976
B) 1974
C) 1984
D) 1986
95. Blindness in premature and low birth weight infants can occur due to
A) Retinoblastoma
B) Retinopathy of prematurity
C) Retinitis
D) Choroiditis
96. Sterilisation with steam under pressure is done by
A) Hot air oven
B) Autoclaving
C) Ethylene oxide
D) Gluteraldehyde
97. Following are optical low visual aids except
A) Stand magnifier
B) Closed circuit television
C) Telescope
D) White cane
98. SAFE strategy is implemented for control of
A) Diabetes
B) Childhood blindness
C) Trachoma
D) Injuries
99. The most common cause of blindness in India is
A) Diabetic retinopathy
B) Glaucoma
C) Age related macular degeneration
D) Cataract
100. Sterilisation of operation theatre is done by
A) Formaldehyde
B) Ethylene oxide
C) Hot air oven
D) Gluteraldehyde

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Space for Rough Work

