

DNB FINAL EXAM JUNE 2019

NATIONAL BOARD OF EXAMINATIONS

OPHTHALMOLOGY

PAPER-1

PART A

1. a) Anatomy and blood supply of retina.
b) Anatomy and histology of macula,
c) Enumerate macular function test. 4+4+2
2. a) Mechanism of corneal transparency.
b) Pharmacotherapy of alkali corneal injury. 5+5
- 3 a) Enumerate the microbiological techniques available to, diagnose and identify the cause of intraocular infection.
b) Discuss the advantages and disadvantages of each technique. 5+5
4. a) Classify pharmacological agents available to treat glaucoma.
b) Mechanism of action of topical agents
c) Adverse effects and contraindications of systemic agents. 4+3+3
5. a) Enumerate various types of LASERs used in ophthalmic practice.
b) Uses of LASERs in ocular disorders.
c) Safety precautions in LASER delivery. 2+6+2

PART B

6. a) Visual pathway and its blood supply.
b) Anatomy of lateral geniculate body and visual cortex 5+5
7. a) Development of the lens.
b) Enumerate congenital abnormalities of lens.
c) Factors contributing to genesis of cataract. 3+2+5
8. a) Supranuclear control of ocular movements.
b) Grades of binocular vision.
c) Tests for evaluation of binocular vision. 5+2+3
9. a) Genetics of retinoblastoma
b) Histopathology of retinoblastoma. 5+5

10. a) Role of immunosuppressive drugs in ocular disorders.
b) Gene therapy. 5+5

PAPER-II

PART A

1. Clinical features and management of adenoviral Keratoconjunctivitis. 5+5
2. A 30-year-old male reports with acute onset unilateral red eye and diminished vision of three days duration with watery discharge, a corneal epithelial lesion, stromal infiltration and an immune ring on the endothelium. He gives a history of previous episodes of red eye in the same eye and has lesions suggestive of previous corneal disease. Make a flowchart describing how you would arrive at a diagnosis and how you would manage the case. 5+5
3. a) Classify esotropia.
b) How would you plan the management of convergence excess esotropia in a 5-year-old child?
c) Describe the choice of procedure and surgical planning in detail. 2+4+4
4. A patient with chronic angle closure glaucoma undergoes a trabeculectomy and has a shallow anterior chamber on the first postoperative day. Describe the process by which you would discern the cause of postoperative anterior chamber shallowing and how you would manage this situation. 5+5
5. Ocular management of a 50-year-old diabetic patient including medical, surgical and Laser treatment who has 3/60 vision and proliferative diabetic retinopathy in both eyes. 10

PART B

6. A 10-year-old child with complaints of blurring of vision and whitish opacities in both eyes is brought to OPD. Discuss differential diagnosis and management of this case. 5+5
7. a) Clinical features and differential diagnosis of various types of retinal detachment.
b) Management of giant retinal tear. 6+4
8. A 6-year-old child is brought to the OPD by her parents with complaints of drooping of the left upper lid noticed three years ago. How would you evaluate this patient and decide on your course of management? 5+5
9. Enumerate the various ocular manifestations of Hansen's disease. Discuss management of Lagophthalmos. 4+6
10. a) Neurofibromatosis-ocular manifestations.

b) Differential diagnosis of optic nerve glioma. 5+5

PAPER-III

PART A

1. A 70-year-old male with a normal phakic contralateral eye had posterior capsular tear in the centre during a phacoemulsification procedure after removal of the cortex. Make a flowchart describing your subsequent actions, explaining why you performed each step.
2. a) Enumerate the various consequences of a closed globe injury by a blunt object.
b) How would you distinguish between open globe and closed globe injury?
3. A 21-year-old myopic male presented with a total retinal detachment in the right eye, a single causative break at 11 o'clock anterior to the equator and no PVR.
a) What are the surgical options for management of retinal detachment?
b) Explain clearly why you would recommend your chosen surgical option and outline the surgical steps.
4. a) Enumerate various implant drainage devices in glaucoma surgery.
b) Indications and adverse effects of Ahmed Glaucoma Valve surgery.
5. a) Enumerate Kerato refractive surgeries.
b) Intraoperative and postoperative complications of LASIK and their management.

PART B

6. After giving one ml of a peribulbar anaesthetic, there is sudden proptosis, pain, subconjunctival hemorrhage, severe chemosis and loss of vision with loss of all ocular movements and inability to close the eyelids.
a) Describe what your further course of action would be.
b) What are the signs of globe perforation during peribulbar block? 5+5
7. What are the surgical options in the management of a blowout fracture of the orbit? Discuss the indications for each. 5+5
8. a) Enumerate various types of lamellar keratoplasty.
b) How would you decide which lamellar procedure would be appropriate for a patient? 5+5
9. Management options in a case of lateral rectus palsy with visually disabling diplopia. 10
10. a) Describe techniques for repair of a canalicular injury.
b) Describe types of Orbital Implants and their advantages. 5+5

PAPER-IV

PART A

1. An 80-year-old retired schoolteacher with parkinsonism and modest visual demands was operated for cataract in the right eye and she has a postoperative error of +5 diopter in the first week. Her contralateral eye is pseudophakic and has good uncorrected postoperative vision with which she is satisfied. The current surgery was uncomplicated
 - a) Discuss various options for further management of the patient.
 - b) How would you decide on the best course of action?
2. Discuss the newly available options for the management of Limbal stem cell deficiency.
3.
 - a) Principles of Femto Assisted Cataract Surgery (FACS).
 - b) Advantages and disadvantages of FACS.
4. Role of biological agents in management of patient with bilateral chronic uveitis.
5.
 - a) Describe newly available modalities for imaging of the anterior segment?
 - b) Management of a painful blind eye with medically uncontrollable intraocular pressure of 50 mm Hg.

PART B

6. Describe management options for a 60-year old patient suffering from age related macular degeneration with visual acuity of 3/60 both eyes. Discuss options for visual rehabilitation of patient.
7. What are the current management options available for a case chronic central serous chorioretinopathy?
8. Recent advances in management of postoperative astigmatism
9. What are the surgical options for management of presbyopia?
10.
 - a) Intra-arterial chemotherapy for retinoblastoma.
 - b) Uses of botulinum toxin in the eye.