

DNB Question Paper 2019 (December)

Paper I

Write short notes

1. a) Metabolism of human crystalline lens.
b) Biochemical factors responsible for cataract
2. a) Parameter involved in fluid dynamics in Phacoemulsification
b) Difference, advantage and disadvantage of peristaltic versus venturi pump.
3. A) Explain the optics of Scleral Contact lens and RGP contact lens.
B) Contact lenses for keratoconus.
4. Describe the methods, risk, and benefits of tumor biopsy for intraocular tumors.
5. A) Drug delivery systems utilized in ophthalmology.
B) Antimetabolites used in Ophthalmology.
6. a) Blood Aqueous barrier and Blood Brain Barrier.
b) Clinical implication of both these barriers.
7. a) Principle of Goldmann Applanation Tonometry.
b) Corneal Hysteresis.
8. a) Retinoscopy – types and technique.
b) Subjective correction (prescription of glasses) in patient aged 15 year and 50 years.
9. a) Calculation of IOL power in children.
b) Selection of IOL in children.
10. a) Pupillary pathway.
b) Pathway for accommodation.

Paper II

Write short notes

1. Describe the clinical features, evaluation and management of microsporidial keratitis.
2. Risk factors, classification and management of retinopathy of prematurity (ROP)
3. Describe the clinical features, evaluation and management of idiopathic intracranial hypertension.
4. Describe the clinical features, evaluation and management, association and management of congenital ptosis.
5. Describe the clinical features, evaluation and management of ocular manifestations of Steven Johnson syndrome.
6. Describe the clinical features, evaluation, differential diagnosis and management of pigment dispersion syndrome.
7. a) Cavernous sinus syndrome: clinical presentation and management.
b) Superior orbital fissure syndrome – clinical presentation & management.
8. a) Differential diagnosis of white dot syndromes.
b) Clinical features, evaluation and management of Serpiginous choroidopathy.
9. a) Approach to headaches related to ophthalmology.
b) Approach to a case of amaurosis fugax.
10. Juvenile idiopathic arthritis – ocular manifestations and management.

Paper III

1. Sterilization techniques – ophthalmic operation theatre, surgical instrument and logistic.
2. a) Describe the inheritance pattern and clinical features of corneal stromal dystrophies.
b) Discuss about merits and demerits of endothelial keratoplasty.
3. Classification, clinical features, diagnosis and management of choroidal melanoma.

4. a) Phacomatoses – definition, types & ocular manifestations.
b) Management of ocular manifestation of neurofibromatosis.
5. a) Investigation and management of cluster endophthalmitis.
b) Difference between TASS and endophthalmitis.
6. describe typical and atypical clinical features, evaluation and management of arteritic AION (Anterior optic neuropathy).
7. Describe the clinical features evaluation and management of infantile esotropia.
8. a) Nystagmus – definition and types /classification.
b) Approach & examination of a case of congenital nystagmus.
c) Surgical options for management of nystagmus.
9. a) Pathophysiology evolution and management of full thickness macular holes.
b) Factors prognosticating the treatment outcome.
10. Botulinum toxin use in ophthalmology – mechanism of action indication and complications.

Paper IV

1. Corneal crosslinking – Principles indication & different protocols.
2. a) Newer microsurgical devices for management of glaucoma.
b) Discuss tube versus trabeculectomy study.
3. a) SMILE – indication, intraoperative & postoperative complication and their management.
b) Phakia IOLs – types indication intraoperative & postoperative complication and their management.
4. OCTA – principal and clinical applications.
5. Tele – ophthalmology – role and application up.
6. a) Define dry eyes as per DEWS 2 report.
b) Role of anti- inflammatory agents in management of dry eyes.
c) Diagnosis and management of Meibomian gland disease.
7. a) Visual prosthesis.
b) Keratoprosthesis.
8. a) Ocular surface reconstruction.
b) SLET – indication, intraoperative & postoperative complication and their management.
9. a) Bevacizumab – mechanism of action, indication and difference with other drugs of same group.
b) Discuss in brief CATT 1 and CATT 2 trials.
10. Enumerate and describe role of biomarkers which may be beneficial in diagnosis, pathogenesis, treatment, strategies and prevention of various ocular morbidities.