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## DNB Examination 2014 December

### Paper I

#### Part A

Write short notes on:

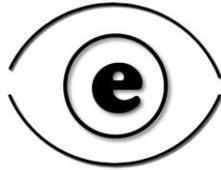
1.
  - a. What is Visual Acuity (VA)? (2+2+2+4)
  - b. How do you measure Visual Acuity in children?
  - c. What are the shortcomings of testing VA by Snellen's chart?
  - d. Describe in detail other modalities of VA assessment with their advantages over the use of Snellen's chart?
2. Define Retinoscopy. What are its principles and its types? What inferences are drawn while doing retinoscopy with plain and concave mirrors? (1+3+6)
3.
  - a. Anatomy of the superior oblique muscle. (2+2+6)
  - b. Mechanism of its muscle actions in various directions of gaze.
  - c. Management of unilateral and bilateral superior oblique palsy.
4. Genetics, Pathophysiology, differential diagnosis and management of primary congenital glaucoma. (2+2+3+3)
5. Structure and anatomy, embryology and management of congenital abnormalities of iris. (3+3+4)

#### Part B

6.
  - a. Anatomy of the crystalline lens. (3+3+4)
  - b. Its physiology and how it remains clear.
  - c. Its embryological development with suitable diagram(s).
7. Techniques, role, indications and advantages or disadvantages of periocular and intraocular steroids. (2+2+2+4)
8.
  - a. Discuss the microbiological profile in infective endophthalmitis with their antibiotic sensitivity profile. (3+3+4)
  - b. Give doses and combinations of preferred intravitreal antibiotics.
  - c. What is the normal ocular flora?
9. Draw labelled diagram(s) depicting walls of the orbit. Describe in detail the medial wall of the orbit. Describe the applied anatomy of the optic canal. (3+3+4)



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10. What is incidence and prevalence of a disease? How will you calculate sample size and plan survey for cataract blindness? (2+2)+6

## Paper II

### Part A

Write short notes on:

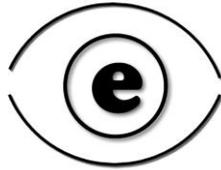
1. Pathology of dry and wet age related macular degeneration. (5+5)
2.
  - a. Difference between an adult and paediatric eye. (3+4+2+1)
  - b. Precautions to be observed in doing paediatric cataract surgery and why?
  - c. What is the relationship between paediatric cataract surgery and glaucoma?
  - d. Outline complete management of unilateral congenital cataract.
3. What is the nature of biochemical abnormality in homocystinuria? Discuss its ocular and systemic manifestations, genetics and management. 3+(4+2+1)
4. Describe various IOL power calculation formulae and how will you calculate IOL power in post refractive surgery patient? (7+3)
5. Grading, investigations, complications and management of traumatic hyphema. (2+2+2+4)

### Part B

6. Preoperative assessment of a case of entropion and discuss 3 surgical options of correction of involutional entropion. (3+7)
7. Enumerate the "stromal corneal dystrophies", their pathology, clinical features and management. (2+2+2+4)
8. What is advanced glaucoma? Give pathogenesis of glaucomatous ocular damage. How will you follow up a case of advanced glaucoma? What are the various treatment options? (2+2+2+4)
9. Describe clinical and laboratory diagnosis of trachoma. Discuss its management, complications and prophylaxis. What is SAFE strategy? 4+(2+2+1)+1
10. What is physiological lacrimal pump? Describe clinical evaluation in a case epiphora. (2+8)



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**Paper III**

**Part A**

1. Describe the corneal topography findings in keratoconus. How do you grade the severity of keratoconus? (10)
2. What is Sturge-Weber syndrome? Give its classification, clinical signs, investigations and principles of management of associated glaucoma. 2+(2+3+1+2)
3. What are the ocular features of HIV disease? What is the impact of HAART on ocular features? (6+4)
4. Classify antifungal drugs, their clinical uses and side effects of each drug. (3+4+3)
5. Describe the causes, investigations and management in a case of "tractional retinal detachment". (3+3+4)

**Part B**

6. A 21 year old myope (-2.5D) presented with sudden profound unilateral diminution of vision. Discuss the differential diagnosis, investigation and management. (2+2+6)
7. Describe the clinical features and management of lacrimal gland tumor. (5+5)
8. Define and enumerate the iridocorneal endothelial syndromes (ICE). Describe their salient features and management. (5+5)
9. Discuss the role of Lasers in diabetic macular edema. Outline complete plan of management in severe diabetic macular edema. What is the role of newer Lasers in management of diabetic macular edema? (5+2+3)
10. Discuss the CATT trial. What were the objectives, design, conclusions and implications of the trial in respect of anti-VEGF agents? 2+(2+2+2+2)



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#### Paper IV

##### Part A

1. What is VEP? What are the types of VEP? What is the role of VEP in modern clinical practice? What are its limitations? (2+2+4+2)
2. Discuss the principles of optical coherence tomography (OCT). What are the types of OCT? Mention indications of its use. (4+2+4)
3. Anterior ischaemic optic neuropathy: types, clinical manifestations, investigations and management. (2+2+2+4)
4. What is Donder's reduced eye? What are the cardinal points? (2+8)
5. Classify and give complete management of esotropias in detail. (3+7)

##### Part B

6. Describe the barriers to drug penetration in the cornea. What is partition coefficient? Describe various factors affecting drug penetration with respect to drug formulation and corneal anatomy. (4+2+4)
7. What are cytokines? Enumerate important pro-inflammatory cytokines. What role do they play in ocular inflammation? (5+5)
8. What is the pharmacological mechanism of action of cyclosporine? What are its clinical uses in ophthalmology? (5+5)
9. Describe clinical and therapeutic uses of prisms in ophthalmology. (10)
10. Give various methods of grading of anterior chamber angle. Discuss principle of gonioscopy and various types of gonioscopes. What are the other modalities to see anterior chamber angle? (3+4+3)

