

Multiple Choice Questions In Ophthalmology

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Dedication

To my husband Dr. Thakir

To my mother

***To my children Ahmed and
Najwan***

Preface to Multiple choice questions in ophthalmology

The purpose of the (*Multiple choice questions in ophthalmology*), is to presentsome questions in different subjects in ophthalmology in order to give a quick review of informations in ophthalmology for students.

This part include 100 Multiple choice questions about many subjects which are : eyelids, lacrimal drainage system, orbit, dry eye disorders, conjunctiva, cornea, corneal and refractive surgery , episclera and sclera, lens , glaucoma and uveitis. These questions were prepared in form of most appropriate single answer and the solutions of these answers were written and explained at the end of the book.

These questions were prepared depending on seventh edition(2011) of clinical ophthalmology by Jack Kanski and Brad Bowling.

Dr. Zeina Al-Sabti

Eyelids

1-Regarding Steroid injection for treatment of chalazion :

- a) Is not preferable if chalazion is close to the lacrimal punctum .**
- b) Between 0.2 and 2 ml of 5 mg /ml triamcinolone diacetate aqueous suspension .**
- c) 0.2 and 2 ml of 5 mg /ml dexamethasone .**
- d) The success rate following one injection is about 50% .**

2-Which of the following is not a differential diagnosis of squamous cell papilloma ?

- a) Viral wart .**
- b) Seborrhoeic keratosis .**
- c) Intra-dermal naevus .**
- d) Chalazion .**

3-which of the following is not a synonym of Basal cell papilloma ?

- a) Seborrhoeic keratosis .**
- b) Seborrhoeic wart .**
- c) Actinic keratosis .**
- d) Senile verruca .**

4-Actinic keratosis :

- a) Is typically affect young people .**
- b) Is common rapid – growing lesion .**
- c) It affects individuals who have been exposed to excessive sunlight.**
- d) It has high potential for transformation into squamous cell carcinoma.**

5-Capillary haemangioma :

- a) Is rare tumor of infancy .**
- b) The female to male ratio is 7: 1 .**
- c) It have predilection for the lower lid .**
- d) It blanches on pressure and may swell on crying .**

6-Ocular features of sturge – weber syndrome include all of the following except one:

- a) Ipsilateral glaucoma .**
- b) Iris haemangioma .**
- c) Iris heterochromia.**
- d) Diffuse choroidal haemangioma.**

7-Young patients who suffer from the following conditions have no potential to develop eyelid malignancies :

- a) Xerodermapigmentosum .**
- b) Gorlin – Goltz syndrome .**
- c) Muir – Torre syndrome .**
- d) Neurofibromatosis .**

8-Regarding basal cell carcinoma :

- a) 90% of cases occur in the head and neck and about 30% of these involve the eyelid .**
- b) It most frequently arises from the upper eyelid , followed in relative frequency by medial canthus , lower eyelid and lateral canthus .**
- c) It most frequently affects young patients .**
- d) The tumor is slow – growing and locally invasive but not metastasizing .**

9-Regarding squamous cell carcinoma :

- a) SCC is typically less aggressive tumor than BCC .**
- b) It metastasizes to regional lymph nodes in about 50% .**
- c) SCC accounts for 20% of eyelid malignancies .**
- d) The tumor may exhibit perineural spread to the intracranial cavity via the orbit .**

10- Clinical types of SCC include all of the following except :

- a) Nodular SCC .
- b) NoduloulcerativeSCC .
- c) Ulcerating SCC .
- d) Cutaneous horn .

11-The clinical types of sebaceous gland carcinoma include all of the following except:

- a) Nodular SGC .
- b) Spreading SGC .
- c) Sclerosing SGC .
- d) Pagetoid spread .

12- Radiotherapy in the treatment of malignant eyelid tumors is contraindicated in all the following except:

- a) Medial canthalBCC .
- b) Upper eyelid tumors .
- c) Aggressive tumors such as sclerosing BCC ,SCC and SGC .
- d) Kaposi sarcoma .

13-The causes of acquired trichomegaly include all of the following except:

- a) Malnutrition .**
- b) AIDS .**
- c) Hyperthyroidism .**
- d) Familial .**

14-which one of the following is not ocular cause of poliosis:

- a) Chronic anteriorblepharitis .**
- b) Sympathetic ophthlalmritis .**
- c) Idiopathic uveitis .**
- d) Vitiligo .**

15- Chronic blepharitis not associated with:

- a) Tear film instability .**
- b) Chalazion formation .**
- c) Viral keratitis.**
- d) Contac lens intolerance .**

16-The classification of ptosis include all of the following except :

- a) Neurogenic .**
- b) Myogenic .**
- c) Aponeurotic .**
- d) Pesudoptosis**

17-The age related changes that contribute to involutional ectropion include all of the following except:

- a) Vertical lid laxity .**
- b) Lateral canthal tendon laxity .**
- c) Medial canthal tendon laxity .**
- d) Disinsertion of lower lid retractors .**

18- Which treatment modality is not considered in the treatment of over – riding in involuntionalentropion :

- a) **Transvers everting sutures .**
- b) **Wies procedure .**
- c) **Lateral canthal sling or a full –thickness wedge excision.**
- d) **Jones procedure .**

19-The causes of lid retraction include all of the following except:

- a) **Myogenic .**
- b) **Neurogenic .**
- c) **Mechanical .**
- d) **Congenital .**

20-Regarding blepharochalasis:

- a) Conman condition .**
- b) Characterized by recurrent episodes of painful , non – pitting oedema of both upper lids .**
- c) Usually resolves spontaneously after few months .**
- d) Treatment involves blepharoplasty for redundant upper lid skin and correction of ptosis .**

21-The associations with floppy eyelid syndrome include all the following except :

- a) Keratoconus .**
- b) Skin hyperelasticity .**
- c) Joint hypomobility .**
- d) Obstructive sleep apnoea .**

Lacrimal drainage system

22-Contrast dacryocystography :

- a) To confirm the site of lacrimal drainage obstruction , especially , prior to surgery .
- b) Not used to diagnose diverticuli , fistula and filling defects caused by stones or tumors .
- c) The test is not usually performed on both sides simultaneously .
- d) It should be performed in patient with acute dacryocystitis .

23-The treatment options in secondary punctual stenosis include all the following except:

- a) Ziegler cautery .
- b) Medial conjunctivoplasty .
- c) Lower lid tightening .
- d) Upper lid tightening .

24-The causes of nasolacrimal duct obstruction include all the following except :

- a) Idiopathic stenosis is rare .**
- b) Noso – orbital trauma and previous nasal and sinus surgery .**
- c) Granulomatous disease .**
- d) Infiltration by nasopharyngeal tumours .**

25-The advantages of endoscopic DCR over conventional DCR include all the following except :

- a) Lack of a skin incision .**
- b) Shorter operating time .**
- c) Minimal blood loss .**
- d) High risk of cerebrospinal fluid leakage .**

Orbit

26-The ophthalmoplegia caused by all the following except :

- a) An orbital mass .
- b) Splinting of the optic nerve by an optic nerve sheath meningioma .
- c) Tethering of extra ocular muscles or fascia in a blow – out fracture .
- d) Non –restrictive myopathy .

27-The pathogenesis of lid retraction include all the following except :

- a) Fibrotic contracture of levator.
- b) Secondary over action of levator – superior rectus complex .
- c) Humorally – induced overaction of Muller muscle .
- d) 6th nerve palsy .

28-The surgical procedures for lid retraction include all the following except :

- a) Mullerotomy .**
- b) Radiotherapy .**
- c) Recession of lower lid retractors .**
- d) Botulinum toxin injection .**

29-The most common causative organisms for bacterial orbital cellulitis include all the following except :

- a) S. pneumonia .**
- b) S. aureus .**
- c) Diptheria .**
- d) H . influenzae .**

30-The ocular complication of bacterial orbital cellulitis include all the following except :

- a) Exposure keratopathy .**
- b) Ocular hypotony .**
- c) Occlusion of the central retinal artery or vein .**
- d) Endophthalmitis .**

31-Intracranial complications of bacterial orbital cellulitis (all true except) :

- a) Meningitis .**
- b) Brain abscess .**
- c) Cavernous sinus thrombosis .**
- d) Sub periosteal abscess .**

32-Regarding Tolosa- Hunt syndrome (all true except):

- a) Is a diagnosis of exclusion .**
- b) It is a common condition .**
- c) Caused by non – specific granulomatous inflammation of the cavernous sinus ,superior orbital fissure and/ or orbital apex .**
- d) Its clinical course characterized by remissions and recurrences .**

33-Lymphangiomas are :

- a) Neoplasms .**
- b) Functional .**
- c) Malignant .**
- d) Vascularmalformations .**

34-The types of classification of carotid – cavernous fistulae include all the following except:

- a) Aetiological .**
- b) Hemodynamics .**
- c) Pathological .**
- d) Anatomical .**

35-Regarding direct carotid – cavernous fistula :

- a) Representing 80% of all cases .**
- b) Also called dural shunt .**
- c) Trauma is responsible for 10% of cases .**
- d) Middle – aged hypertensive women are at particular risk.**

36-Regarding superficial dermoid cyst :

- a) Painful nodule .**
- b) Most commonly located in the inferotemporal part of the orbit .**
- c) C T shows a homogenous well – circumscribed lesion .**
- d) Treatment is by excision in toto .**

37-Associations with encephalocele (all true except):

- a) Broad nasal bridge and cleft palate .**
- b) Microphthalmos.**
- c) Neurofibromatosis .**
- d) Morning glory syndrome .**

38-Regarding capillary haemangioma :

- a) Boys are affected more commonly than girls .**
- b) Is the least common tumor of the orbit and periorbital areas in childhood.**
- c) The tumor is composed of anastomosing small vascular channels without true encapsulation.**
- d) Present only as a small isolated lesion of minimal clinical significance .**

39-The indications of treatment of capillary haemangioma include all the following except:

- a) Amblyopia secondary to induced astigmatism , anisometropia and occlusion .**
- b) Optic nerve compression .**
- c) Exposure keratopathy .**
- d) Pain and tenderness .**

40-Regarding cavernous haemangioma:

- a) Is avascular malformation that occurs in children .**
- b) It has a female preponderance of 40% .**
- c) Although it may develop anywhere in the orbit , it most frequently occurs within the medial part of the muscle cone just behind the globe .**
- d) It's histology shows endothelial – lined vascular channels of varying size separated by fibrous septae .**

41-Pleomorphic lacrimal gland adenoma:

- a) Also called malignant mixed – cell tumor .**
- b) Presentation is in the 1st decade with painful slowly progressive proptosis .**
- c) Treatment involve surgical excision .**
- d) Prognosis is poor even if the excision is complete and without disruption of the capsule .**

42- Regarding lacrimal gland carcinoma (all true except) :

- a) Is a rare tumor which carries a high morbidity and mortality .**
- b) Presentation is in the 4th – 5th decades with a history shorter than that of a benign tumour .**
- c) CT shows a globular lesion with irregular serrated edges , often with contiguous erosion or invasion of bone .**
- d) Biopsy is not necessary to establish the histological diagnosis**

43-Optic nerve glioma:

- a) Histology shows spindle – shaped pilocytic astrocytes and glial filaments .**
- b) Presentation is most frequently in the 2nd decade(median age 14 years) .**
- c) Proptosis often axial .**
- d) MR may be not useful in showing intracranial extension .**

44-Optic nerve sheath meningioma :

- a) Presentation is with sudden unilateral visual impairment.**
- b) The classical triad is visual loss , optic atrophy and opticociliary shunt vessels .**
- c) CT shows fusiform enlargement of optic nerve .**
- d) Prognosis for life is very poor in adults .**

45-Enucleation (removal of the globe) is indicated in the following circumstances (all true except):

- a) Primary intraocular malignancies .**
- b) After sever trauma .**
- c) Blind painful or unsightly eyes .**
- d) Orbital mucormycosis.**

46-Crouzon syndrome :

- a) Inheritance is usually AR.**
- b) The gene (FGFR3) has been isolated to chromosome 10 .**
- c) Proptosis due to shallow orbits is rare conspicuous feature .**
- d) Cataract and glaucoma not associated with it .**

47-Apert syndrome (all true except) :

- a) Inheritance is AD .**
- b) Also called acrocephalosyndactyly .**
- c) Is the most severe of the craniosynostose and may involve all the cranial sutures.**
- d) Ocular associations include blue sclera , coloboma and megalocornea.**

Dry eye disorders

48-The causes of meibomian gland dysfunction include all the following except :

- a) Anterior blepharitis .
- b) Rosacea .
- c) Atopic kertaconjunctivitis.
- d) Congenital meibomian gland absence .

49-The Causes of lagophthalmos include all the following except :

- a) Severe proptosis .
- b) 3rd nerve palsy .
- c) Eyelid scarring .
- d) Following blepharoplasty .

50-Sjogren syndrome :

- a) Characterized by infection of lacrimal and salivary glands.**
- b) Primary Sjogren syndrome affects males more commonly than females .**
- c) Presentation is in adult life with qrittiness of the eyes and dryness of mouth .**
- d) Diagnostic tests include schirmer test and biopsy of lacrimal gland .**

51-Schirmer test :

- a) The test involves measuring the amount of witting of a special (no.40 what man) filter paper , 5 mm wide and 70 mm long .**
- b) The filter paper removed from the eye after 1 minute .**
- c) Less than 10 mm of wetting after 5 minute , without anesthesia and less than 6 mm with anesthesia is considered abnormal .**
- d) Single schirmer test used as the sole criterion for diagnosing dry eye .**

Conjunctiva

52-Conjunctival discharge:

- a) Watery discharge occurs in acute viral or chronic allergic conjunctivitis .**
- b) Mucoid discharge is typical of acute allergic conjunctivitis and dry eye .**
- c) Mucopurulent discharge typically occurs in acute viral conjunctivitis .**
- d) Severe purulent discharge is typical of gonococcal infection .**

53-The causes of true conjunctival membrane include all the following except :

- a) Severe adenoviral conjunctivitis .**
- b) Gonococcal conjunctivitis .**
- c) Ligneous conjunctivitis .**
- d) Chronic Stevens - Johnson syndrome .**

54-The most common isolates in Acute bacterial conjunctivitis are (all true except) :

- a) **S. pneumonia .**
- b) **S. aureus .**
- c) **Strep. Cocci .**
- d) **H. influenza .**

55-Incubation period of chlamydia trachoma's is about :

- a) **1 week .**
- b) **2 week .**
- c) **5 days .**
- d) **20 days .**

56-Trachoma is associated principally with infection by serovars (all true except) :

- a) **A**
- b) **B**
- c) **Ba**
- d) **D – K**

57-Antibiotics used in management of trachoma include all the following expect :

- a) A single dose of azithromycin (20mg/kg up to1g) .**
- b) Erythromycin 500mg b.d for 14 days in an alternative forwomen for Child bearing age .**
- c) Doxycycline 100mg b.d for 10 days .**
- d) Topical 1% tetracycline ointment for 6 weeks .**

58-The percentage of silver nitrate that use as prophylaxis for neonatal conjunctivitis :

- a) Silver nitrate 1% solution.**
- b) Silver nitrate 2% solution.**
- c) Silver nitrate 3% solution.**
- d) Silver nitrate 4% solution.**

59-The presentation of adenoviral conjunctivitis include all the following except :

- a) Non – specific ocule follicular conjunctivitis .**
- b) Pharyngoconjunctival fever .**
- c) Epidemic keratoconjunctivitis .**
- d) Acute / relapsing adenoviral conjunctivitis.**

60-Pharnygoconjunctival fever is a caused by adenovirus serovars (all true expect):

- a) 3**
- b) 4**
- c) 17**
- d) 7**

61-Epidemic keratoconjunctivitis is caused by adenovirus serovars (all true except) :

- a) 8**
- b) 17**
- c) 19**
- d) 37**

62-Incidence of keratitis in epidemic keratoconjunctivitis is:

- a) 50%**
- b) 60%**
- c) 80%**
- d) 20%**

63-Peak incidence of molluscumcontagiosum conjunctivitis is between the age :

- a) 2 and 4 years .**
- b) 10 and 14 years.**
- c) 5 and 10 years .**
- d) 20 and 25 years .**

64-Keratopathy associated with vernal keratoconjunctivitis occur in the following forms : (all true except)

- a) Epithelial macroerosions .**
- b) Plaques and shield ulcers .**
- c) Subepithelial scars .**
- d) Inferior punctate epithelial erosions .**

65-Recurrence of pterygium after simple excision(bare sclera technique) is about :

- a) 60%**
- b) 80%**
- c) 40%**
- d) 20%**

Cornea

66-The adult corneal endothelial cell density is about :

- a) 1000 cells /mm²
- b) 1500 cells /mm²
- c) 2500 cells /mm²
- d) 4000 cells /mm²

67-The number of corneal endothelial cells decreases per year at about :

- a) 0.2% .
- b) 0.6% .
- c) 0.9% .
- d) 1 % .

68-The causes of interpalpebral punctate epithelial erosions include all the following expect :

- a) Dry eye .**
- b) Reduced corneal sensation .**
- c) Ultra violet keratopathy .**
- d) Toxicity to drops .**

69-Causes of corneal filaments are (all true expect):

- a) Superior limbic keratoconjunctivitis .**
- b) Neurotrophic keratitis .**
- c) Long – term ocular patching .**
- d) Herpes zoster keratitis .**

70-The bacteria that are able to penetrate a normal corneal epithelium include all the following expect :

- a) N. gonorrhoea.**
- b) Pseudomonas aeruginosa .**
- c) N. meningitidis .**
- d) C. diphtheria .**

71-Regarding onchocerciasis: (all true expect)

- a) Also called river blindness .**
- b) Caused by infestation with the parasitic helminth onchocerca volvulus .**
- c) Live microfilariae may be seen in cornea , aqueous and vitreous in up to 5% of patients .**
- d) Systemic ivermectin has a beneficial effect on at least the anterior segment ocular features .**

72-Clinical types of Rosacea are (all true expect) :

- a) **Erythematotelangiectatic.**
- b) **Papulopustular .**
- c) **Phymatous .**
- d) **Acne vulgaris (comedone) .**

73-The systemic diseases associated with peripheral ulcerativekeratitis include all the following expect :

- a) **Rheumatoid arthritis .**
- b) **Wegener granulomatosis .**
- c) **SLE .**
- d) **Ankylosing spondylitis .**

74-WHO grading of xerophthalmia : (all true expect)

- a) XN= night blindness .**
- b) X1=corneal xerosis**
- c) XS= corneal scars .**
- d) XF= xerophthalmic fundus .**

75-grading of keratocones by keratometry according to severity :

- a) Mild ($< 45D$) .**
- b) Moderate ($45 - 49D$).**
- c) Severe ($> 48 D$) .**
- d) Mild ($<48 D$) .**

Corneal and refractive surgery

76-The percentage of alcohol used in LASEK :

- a) 10%
- b) 20%
- c) 50%
- d) 90%

77-LASIK can correct :

- a) Hypermetropia up to 2D .
- b) Astigmatism of up to 3D .
- c) Astigmatism of up to 5D .
- d) Myopia of up to 6D .

78-The residual corneal base that must remain after the flap has been cut and tissue ablated in LASIK is :

- a) 150 μm .
- b) 250 mm .
- c) 250 μm .
- d) 400 μm .

episclera and sclera

79-Signs of posterior scleritis:

- a) Uvealeffusion .**
- b) Choroidal fold .**
- c) Myositis .**
- d) Ptosis .**

lens

80-The incidence of acute endophthalmitis following cataract surgery is approximately :

- a) 0.3%**
- b) 0.5%**
- c) 1%**
- d) 10%**

81-The indications for Nd : Yag laser capsulotomy include all the following expect :

- a) Diminished visual acuity.**
- b) Diplopia or glare .**
- c) Inadequate fundusview .**
- d) Opacity of intraocular lens .**

82-The Complication of Nd: Yag laser capsulotomy include all the following expect :

- a) Damage to the IOL .**
- b) CME .**
- c) Tractional RD**
- d) IOP elevation .**

83-Regarding Marfan syndrome :

- a) Mutation of the fibrillin – 1 gene (FBN1) on chromosome 17q21 .**
- b) Mutation of the fibrillin – 1 gene (FBN1) on chromosome 15q21.**
- c) Inheritance is AR .**
- d) Ectopia lentis is present in 5%of cases .**

Glaucoma

84-The risk factors for primary open – angle glaucoma include all the following expect :

- a) More common in older individuals .**
- b) Family history of POAG .**
- c) Diabetes mellitus .**
- d) Hypermetropia**

85-The risk factors for normal – pressure glaucoma include all the following expect :

- a) Patients tend to be older than those with POAG .**
- b) High prevalence in females .**
- c) Abnormal vasoregulation .**
- d) Systemic hypertension .**

86-Neovascular glaucoma occurs after ischemic central retinal vein occlusion in intervals :

- a) From 2 weeks to 2 years .**
- b) From 4 weeks to 2 years .**
- c) From 1 week to 2 years .**
- d) From 4 weeks to 4 years .**

87-Regarding Posner–Schlossman syndrome(all true expect):

- a) Also called glaucomatocyclitic crisis .**
- b) 40% of patients are positive for HLA-BW54 .**
- c) Gonioscopy shows a closed angle.**
- d) Is characterised by recurrent attacks of unilateral acute glaucoma with mild anterior uveitis .**

88-Regarding phacolytic glaucoma (all true expect):

- a) Also called lens protein glaucoma .**
- b) Is closed angle glaucoma .**
- c) Occur in association with a hypermaturecataract.**
- d) Trabecular obstruction is caused by high molecular weight lens protein .**

89-Regarding Hyphaema, secondary hemorrhage may develop within:

- a) 3 – 5 days of the initial injury.**
- b) 5 – 7 days of the initial injury.**
- c) 1 – 2 days of the initial injury.**
- d) 3 – 10 days of the initial injury.**

90-Regarding primary congenital glaucoma (all true expect):

- a) Affect 1:10000 births .**
- b) 65% of patients are boys .**
- c) Both eyes are affected in 75% of cases .**
- d) Both eyes are affected in 35% of cases .**

91-Regarding Sturge- Weber syndrome (all true expect):

- a) Also called encephalotrigeminalangiomas .**
- b) Is a congenital , sporadic phacomatosis .**
- c) Glaucoma develops in about 30% of patients ipsilateral to facial hemangioma.**
- d) Glaucoma develops in about 30% of patients contralateral to facial hemangioma.**

92-Regarding systemic side effects of systemic carbonic acid inhibitors (all true expect) :

- a) Paraesthesia occur in 50% of patients .**
- b) Malaize complex .**
- c) Gastrointestinal complex .**
- d) Renal stone formation .**

93-Argon laser trabeculoplasty is performed in (all true expect):

- a) Open – angle glaucoma's .**
- b) Pediatric glaucoma .**
- c) Pigmentary glaucoma .**
- d) Pseudo exfoliation glaucoma .**

94-The complications of argon laser trabeculoplasty include all the following expect:

- a) Posterior synechiae .**
- b) Small hemorrhage .**
- c) Acute elevation of IOP .**
- d) Anterior uveitis .**

uveitis

**95-Causes of heterochromia iridis (hyochromia type)
(all true expect):**

- a) Idiopathic congenital .**
- b) Horner syndrome , particularly if congenital .**
- c) Waardenburg syndrome .**
- d) SturgeWeber syndrome .**

96-Regarding Behcet syndrome (all true expect):

- a) Is an idiopathic, multi system disease .**
- b) Is characterized by recurrent episodes of orogenital ulceration and vasculitis .**
- c) Is strongly associated with (HLA) B51 .**
- d) Ocular complication occurs in some percentage of men and women .**

97-Regarding modified diagnostic criteria for VKH syndrome(all true expect) :

- a) Absence of a history of penetrating ocular trauma .**
- b) Absence of other ocular disease .**
- c) Unilateral uveitis .**
- d) Neurological and auditory manifestation .**

98-Regarding fuchs uveitis syndrome :

- a) Is acute .**
- b) Is granulomatous .**
- c) Is bilateral .**
- d) Occurs mostly in the third to fourth decades and affect both sexes equally .**

99-Regarding HLA type and systemic disease (all true expect):

- a) HLA B 27 = spondyloarthropathies , particularly ankylosing spondylitis .**
- b) HLA A 29 = Birdshot chorioretinopathy.**
- c) HLA B 29 = Birdshot chorioretinopathy.**
- d) HLAB 51 = Behcet syndrome .**

100-Regarding iris nodules :

- a) Typically occur in non – granulomatous disease .**
- b) Koeppe nodules are large and situated at the pupillary border.**
- c) Busacca nodules involve the iris stroma .**
- d) Small red nodules are characteristic of sarcoid uveitis .**

Answers and explanation:

Eyelids

1- (b) is the correct answer .

Steroid injection for treatment of chalazion is preferable if the lesion is close to the lacrimal punctum because of risk of surgical damage .Between 0.2 and 2 ml of 5 mg /ml triamcinolone diacetate aqueous suspension diluted with (or equivalent) to a concentration of 5 mg/mL is injected through the conjunctiva into the tissue around the lesion with a 30-gauge needle (dexamethasone is not used for treatment of chalazion).The success rate following one injection is about 80%.In unresponsive cases a second injection can be given 2 weeks later .

2- (d) is the correct answer .

A squamous cell papilloma (fibroepithelial polyp) is a very common condition that has a variable clinical appearance but common histological features. Signs of squamous cell papilloma:

- A fleshed – coloured, narrow- based , pedunculated lesion.
- A broad – based (sessile) lesion which may exhibit a raspberry – like surface.
- A hyperkeratotic filiform lesion similar to a cutaneous horn.

These signs is similar in some extent the signs of viral wart, seborrhoeic keratosis, intradermal naevus, but not chalazion because chalazion present as nodule .

3- (c) is the correct answer .

Basal cell papilloma(Seborrhoeic keratosis, Seborrhoeic wart, Senile verruca) is a common ,slow growing condition found on the face ,trunk and extremities of elderly individuals. While Actinic (solar,senile) keratosis is a common slow- growing lesion that rarely develops on the eyelids .

4- (c) is the correct answer .

Actinic (solar,senile) keratosis is a common slow-growing lesion that rarely develops on the eyelids .It typically affects elderly, fair –skinned individuals who have been exposed to excessive sunlight and most frequently occurs on the forehead and backs of the hands. It has a low potential for transformation into squamous cell carcinoma.

5- (d) is the correct answer .

Capillary haemangioma (strawberry naevus), although rare, is one of the most common tumours of infancy and presents shortly after birth. The female to male ratio is 3: 1

Eyelid haemangiomas have a predilection for the upper lid and may have orbital extensions.

Signs of Capillary haemangioma: unilateral ,raised bright red lesion which blanches on pressure and may swell on crying.

6- (b) is the correct answer .

Ocular features of sturge–weber syndrome (encephalotrigeminalangiomatosis) are Ipsilateral glaucoma, episcleralhaemangioma (not Iris haemangioma) ,Iris heterochromia, Diffuse choroidalheamangioma.

7- (d) is the correct answer .

Young patients who suffer from the following conditions may develop eyelid malignancies:

1-Xeroderma pigmentosum.

2-Gorlin – Goltz syndrome.

3-Muir – Torre syndrome.

4-Bazex syndrome.

5- Other predispositions include immunosuppression, prior retinoblastoma and albinism.

8- (d) is the correct answer .

90% of cases with Basal cell carcinoma occur in the head and neck and about 10% of these involve the eyelid .

It most frequently arises from the lower eyelid , followed in relative frequency by medial canthus , upper eyelid and lateral canthus.It most frequently affects elderly patients.

The tumor is slow – growing and locally invasive but not metastasizing .

9- (d) is the correct answer .

Squamous cell carcinoma (SCC) is typically more aggressive tumor than BCC with metastasis to regional lymph nodes in about 20% of cases.

SCC accounts for 5-10% of eyelid malignancies . The tumor may exhibit perineural spread to the intracranial cavity via the orbit

10- (b) is the correct answer .

Clinical types of SCC include :

- 1- Nodular SCC
- 2- Ulcerating SCC
- 3- Cutaneous horn

11- (c) is the correct answer .

Although sebaceous gland carcinoma does not have a characteristic clinical appearance it may present with the following:

- 1- Nodular SGC
- 2- Spreading SGC
- 3- Pagetoid spread

12- (d) is the correct answer .

Contraindication of using radiotherapy in the treatment of malignant eyelid tumors:

- 1- Medial canthal BCC because radiotherapy would damage the canaliculi and result in epiphora.**
- 2- Upper eyelid tumors because subsequent keratinization results in a chronically uncomfortable eye.**
- 3- Aggressive tumors such as sclerosing BCC ,SCC and SGC .**

While Kaposi sarcoma is highly radiosensitive tumor.

13- (c) is the correct answer .

Causes of acquired trichomegaly include:

- 1- Drug – induced-topical prostaglandin analogues phenytoin and ciclosporin.**
- 2- Malnutrition.**
- 3- AIDS.**

- 4- Porphyria.**
- 5- Hypothyroidism.**
- 6- Familial.**

14- (d) is the correct answer .

Cause of poliosis :

1- Ocular

- Chronic anterior blepharitis.**
- Sympathetic ophthalmitis.**
- Idiopathic uveitis .**

2- Systemic

- Vogt-Koyanagi-Harada syndrome.**
- Waardenburg syndrome.**
- Vitiligo .**
- Marfan syndrome.**
- Tuberous sclerosis.**

15- (c) is the correct answer .

Association of Chronic blepharitis:

- 1- Tear film instability is found in 30 -50 % of patients.**
- 2- Chalazion formation.**
- 3- Epithelial basement membrane disease.**
- 4- Cutaneous (a-Acne rosacea.b-Seborrhoeic dermatitis.c-Acne vulgaris).**
- 5- Bacterial keratitis.**
- 6- Atopic keratoconjunctivitis.**
- 7- Contact lens intolerance.**

16- (d) is the correct answer .

The classification of ptosis include:

- 1- Neurogenic .**
- 2- Myogenic .**
- 3- Aponeurotic .**
- 4- Mechanical.**

17- (a) is the correct answer .

The age related changes that contribute to involutional entropion include:

- 1- Horizontal lid laxity.**
- 2- Medial canthal tendon laxity .**
- 3- Lateral canthal tendon laxity .**
- 4- Disinsertion of lower lid retractors .**

18- (c) is the correct answer .

Treatment of over – riding and disinsertion in involutional entropion:

- 1- Transvers everting sutures .**
- 2- Wies procedure .**
- 3- Jones procedure .**

While Lateral canthal sling or a full –thickness wedge excision is used for correction of horizontal lid laxity.

19- (a) is the correct answer .

Causes of lid retraction:

1- Thyroid eye disease.

2- Neurogenic .

3- Mechanical .

4- Congenital .

5- Miscellaneous.

20- (d) is the correct answer .

Blepharochalasis is an uncommon

condition characterized by recurrent episodes of painless, non – pitting oedema of both upper lids which usually resolves spontaneously after a few days. Treatment involves blepharoplasty for redundant upper lid skin and correction of ptosis .

21- (c) is the correct answer .

Floppy eyelid syndrome associated with :

- 1- Keratoconus.**
- 2- Skin hyperelasticity .**
- 3- Joint hypermobility .**
- 4- Obstructive sleep apnoea .**
- 5- Diabetes.**
- 6- Mental retardation.**

Lacrimal drainage system

22- (a) is the correct answer .

Contrast dacryocystography (DCG) involves the injection of radiopaque contrast medium into the canaliculi followed by capture of magnified images. The test is usually performed on both sides simultaneously .It

should not be performed in patient with acute dacryocystitis .

Indication of contrast dacryocystography:

- 1- To confirm the site of lacrimal drainage obstruction , especially , prior to surgery .**
- 2- To diagnose diverticuli , fistula and filling defects caused by stones or tumors .**

23- (d) is the correct answer .

Secondary punctual stenosis is caused by punctual eversion and treated by :

- 1- Ziegler cautery .**
- 2- Medial conjunctivoplasty .**
- 3- Lower lid tightening .**

24- (a) is the correct answer .

Causes of nasolacrimal duct obstruction :

- 1- Idiopathic stenosis is by far the most common.
 - 2- Noso – orbital trauma and previous nasal and sinus surgery .
 - 3- Granulomatous disease such as Wegener granulomatosis and sarcoidosis.
 - 4- Infiltration by nasopharyngeal tumours .
- 25- (d) is the correct answer .

The advantages of endoscopic DCR over conventional DCR include:

- 1- Lack of a skin incision .
- 2- Shorter operating time .
- 3- Minimal blood loss .
- 4- Less risk of cerebrospinal fluid leakage .

Orbit

26- (d) is the correct answer .

Ophthalmoplegia mean defective ocular motility and may be caused by one or more of the following:

- 1- An orbital mass.
- 2- Restrictive myopathy as in thyroid eye disease or orbital myositis.
- 3- Ocular motor nerve involvement associated with lesion in the cavernous sinus, orbital fissures or posterior orbit.
- 4- Tethering of extra ocular muscles or fascia in a blow – out fracture .
- 5- Splinting of optic nerve by an optic nerve sheath meningioma.

27- (d) is the correct answer .

Pathogenesis of lid retraction : retraction of upper and lower lids occurs in about 50% of patients with Graves disease as a result of the following postulated mechanisms:

- 1- Fibrotic contracture of levator associated with adhesions to the overlying orbital tissues causes lid retraction which is worse on downgaze.**
- 2- Secondary over action of levator – superior rectus complex in response to hypotropia produced by fibrosis and tethering of the inferior rectus muscle ,evidenced by increased lid retraction from downgaze to upgaze.**
- 3- Humorally – induced overaction of Muller muscle as a result of sympathetic overstimulation secondary to high levels of thyroid hormones.**

28- (b) is the correct answer .

Surgical procedures for treatment of lid retraction:

- 1- Mullerotomy(disinsertion of Muller muscle) for mild lid retraction.**
- 2- Recession of lower lid retractors,with or without a hard palate graft, when retraction of the lower lid is 2mm or more .**
- 3- Botulinum toxin injection aimed at the levatoraponeurosis and Muller muscle may be used as a temporary measure in patients awaiting definitive correction.**

29- (c) is the correct answer .

Bacterial orbital cellulitis is a life –threatening infection of the soft tissues behind the orbital septum. The most common causative organisms are S. pneumonia, S. aureus,S. pyogenes and H . influenzae.

30- (b) is the correct answer .

The ocular complication of bacterial orbital cellulitis:

- 1- Exposure keratopathy .**
- 2- Raised intraocular pressure.**
- 3- Occlusion of the central retinal artery or vein .**
- 4- Endophthalmitis .**
- 5- Optic neuropathy.**

31- (d) is the correct answer .

Intracranial complications of bacterial orbital cellulitis ,which are rare but extremely serious, include:

- 1- Meningitis .**
- 2- Brain abscess .**
- 3- Cavernous sinus thrombosis .**

32- (b) is the correct answer .

Tolosa- Hunt syndrome is a diagnosis of exclusion. It is a rare idiopathic condition caused by non – specific granulomatous inflammation of the cavernous sinus ,superior orbital fissure and/ or orbital apex .

The clinical course characterized by remissions and recurrences .

33- (d) is the correct answer .

Lymphangiomas are not neoplasms but abortive, non-Functional, benign, Vascularmalformations .

34- (c) is the correct answer .

Carotid – cavernous fistulae can be classified on the basis of:

- 1- Aetiology (spontaneous and traumatic).**
- 2- Hemodynamics (high and low flow).**
- 3- Anatomy(direct and indirect).**

35- (d) is the correct answer .

Direct carotid – cavernous fistula Representing 50% of all cases and caused by :

- 1- Trauma is responsible for 10% of cases.**
- 2- Spontaneous rupture of an intracavernous carotid aneurysm or an atherosclerotic artery accounts for the remainder . Middle – aged hypertensive women are at particular risk.**

36- (d) is the correct answer .

Presentation of superficial dermoid cyst is in infancy with a painless nodule most commonly located in the superotemporal part of the orbit and occasionally superonasal part of the orbit.

C T shows a heterogenous well – circumscribed lesion.

Treatment is by excision in toto

37- (c) is the correct answer .

Associations with encephalocele:

1- Other bony abnormalities such as hypertelorism, broad nasal bridge and cleft palate.

2-Ocular associations include microphthalmos, orbital varices, coloboma and Morning glory syndrome .

3-Neurofibromatosis type 1 is frequently associated with posterior encephalocele.

38- (c) is the correct answer .

Capillary haemangioma is the common tumor of the orbit and periorbital areas in childhood. Girls are affected more commonly than Boys.

The tumor is composed of anastomosing small vascular channels without true encapsulation.

It may be present as a small isolated lesion of minimal clinical significance ,or as a large

disfiguring mass that can cause visual impairment and systemic complications.

39- (d) is the correct answer .

The indications of treatment of capillary haemangioma :

- 1- Amblyopia secondary to induced astigmatism , anisometropia and occlusion .**
- 2- Optic nerve compression .**
- 3- Exposure keratopathy .**
- 4- A severe cosmetic blemish ,necrosis or infection.**

40- (d) is the correct answer .

Cavernous haemangioma is a avascular malformation that occurs in adults, with a female preponderance of 70%.

Although it may develop anywhere in the orbit , it most frequently occurs within the lateral part

of the muscle cone just behind the globe , and behave like a low-flow arteriovenous malformation.

Histology shows endothelial – lined vascular channels of varying size separated by fibrous septae .

41- (c) is the correct answer .

Pleomorphic lacrimal gland adenoma (benign mixed – cell tumor) is the most common epithelial tumour of the lacrimal gland and is derived from the ducts and secretory elements including myoepithelial cells.

Presentation is in the 2nd – 5th decades with painless slowly progressive proptosis or swelling in the superolateral part of the orbit , usually of more than a year s duration.

Treatment involve surgical excision and the Prognosis is excellent provided excision is complete and without disruption of the capsule .

42- (d) is the correct answer .

Lacrimal gland carcinoma is a rare tumor which carries a high morbidity and mortality .

Presentation is in the 4th – 5th decades with a history shorter than that of a benign tumour .

CT shows a globular lesion with irregular serrated edges , often with contiguous erosion or invasion of bone Calcification in the tumour is commonly seen .

Biopsy is necessary to establish the histological diagnosis.

43- (a) is the correct answer .

Optic nerve gliomais a slow-growing , pilocytic astrocytoma which typically affects children.Histology shows spindle – shaped pilocytic astrocytes and glial filaments .

Presentation is most frequently in the 1st decade(median age 6.5 years) . Proptosis often non- axial with temporal or inferior dystopia .

MR may be useful in showing intracranial extension.

44- (b) is the correct answer .

Presentation of optic nerve sheath meningioma is with gradual unilateral visual impairment .

The classical triad is (a) visual loss , (b) optic atrophy and (c) opticociliary shunt vessels .

CT shows thickening and calcification of the optic nerve.

Prognosis for life is good in adults, although the tumour may be aggressive in children .

45- (d) is the correct answer .

Enucleation (removal of the globe) is indicated in the following circumstances:

- 1- Primary intraocular malignancies .**
- 2- After sever trauma where the risk of sympathetic ophthalmitis may outweigh any prospect of visual recovery is a rare indication.**
- 3- Blind painful or unsightly eyes.**

While Orbital mucormycosis is treated by exenteration.

46- (b) is the correct answer .

Inheritance of Crouzon syndrome is usually AD, but 25% of cases represent a fresh mutation.

The gene (FGFR3) has been isolated to chromosome 10 .

Proptosis due to shallow orbits is the most conspicuous feature .

Ocular associations include blue sclera , cataract , ectopia lentis , glaucoma , coloboma, megalocornea and optic nerve hypoplasia.

47- (d) is the correct answer .

Apert syndrome (acrocephalosyndactyly) is the most severe of the craniosynostoses and may involve all the cranial sutures.

Inheritance is AD , but in the majority of cases it is sporadic and associated with older parental age.

Ocular associations include keratoconus , ectopia lentis and congenital glaucoma.

Dry eye disorders

48- (a) is the correct answer .

The causes of meibomian gland dysfunction include:

- 1- Posterior blepharitis .
- 2- Rosacea .
- 3- Atopic kertaconjunctivitis.
- 4- Congenital meibomian gland absence .

49- (b) is the correct answer .

The Causes of lagophthalmos include:

- 1- Severe proptosis .
- 2- Facial nerve palsy .
- 3- Eyelid scarring .
- 4- Following blepharoplasty .

50- (c) is the correct answer .

Sjogren syndrome is Characterized by autoimmune inflammation and destruction of lacrimal and salivary glands .

Primary Sjogren syndrome affects females more commonly than males .Presentation is in adult life with qrittiness of the eyes and dryness of mouth .

Diagnostic tests include serum autoantibodies ,schirmer test and biopsy of minor lacrimal gland .

51- (c) is the correct answer .

Schirmer test is a useful assessment of aqueous tear production.The test involves measuring the amount of witting of a special (no.41 what man) filter paper , 5 mm wide and 35 mm long.

The filter paper removed from the eye after 5 minute .

Less than 10 mm of wetting after 5 minute , without anesthesia and less than 6 mm with anesthesia is considered abnormal .

Results can be variable and a single schirmer test should not be used as the sole criterion for diagnosing dry eye , but repeatedly abnormal tests are highly supportive .

Conjunctiva

52- (d) is the correct answer .

Conjunctival discharge:

- 1- **Watery discharge is composed of serous exudate and tears and occurs in acute viral or acute allergic conjunctivitis .**
- 2- **Mucoid discharge is typical of chronic allergic conjunctivitis and dry eye .**
- 3- **Mucopurulent discharge typically occurs in chlamydial or acute bacterial infection .**
- 4- **Moderately purulent discharge occurs in acute bacterial conjunctivitis .**
- 5- **Severe purulent discharge is typical of gonococcal infection .**

53- (d) is the correct answer .

The causes of true conjunctival membrane include:

- 1- Severe adenoviral conjunctivitis .**
- 2- Gonococcal conjunctivitis .**
- 3- Ligneous conjunctivitis .**
- 4- Acute Stevens - Johanson syndrome .**
- 5- Bacterial infection(Streptococcus spp.,Corynebacterium diphtheria).**

54- (c) is the correct answer .

The most common isolates in Acute bacterial conjunctivitis:

- 1- S. pneumonia .**
- 2- S. aureus .**
- 3- H. influenza .**
- 4- Moraxella catarrhalis.**

55- (a) is the correct answer .

Incubation period of chlamydia trachoma's is about 1 week.

56- (d) is the correct answer .

Trachoma is associated principally with infection by serovars A, B, Ba and C of Chlamydia trachomatis, but the serovars D-K conventionally associated with adult inclusion conjunctivitis.

57- (c) is the correct answer .

Antibiotics used in management of trachoma include:

- 1- A single dose of azithromycin (20mg/kg up to 1g) is the treatment of choice .**
- 2- Erythromycin 500mg b.d for 14 days in an alternative for women of Child bearing age .**
- 3- Topical 1% tetracycline ointment is less effective than oral treatment ; it should be given for 6 weeks .**

58- (a) is the correct answer .

The percentage of silver nitrate that use as prophylaxis for neonatal conjunctivitis is 1% solution.

59- (d) is the correct answer .

The presentation of adenoviral conjunctivitis include:

1- Non – specific ocular follicular conjunctivitis .

2- Pharyngoconjunctival fever .

3- Epidemic keratoconjunctivitis .

4- Chronic/ relapsing adenoviral conjunctivitis.

60- (c) is the correct answer .

Pharyngoconjunctival fever is caused by adenovirus serovars 3,4 and 7 .

61- (b) is the correct answer .

Epidemic keratoconjunctivitis is caused by adenovirus serovars 8,19 and 37.

62- (c) is the correct answer .

Incidence of keratitis in epidemic keratoconjunctivitis is about 80%.

63- (a) is the correct answer .

Peak incidence of molluscum contagiosum conjunctivitis is between the age 2 and 4 years .

64- (d) is the correct answer .

Keratopathy associated with vernal keratoconjunctivitis occur in the following forms:

1- Superior punctate epithelial erosions .

2- Epithelial macroerosions .

3- Plaques and shield ulcers .

4- Subepithelial scars .

5- Pseudogerontoxon.

6- Other like keratoconus.

65- (b) is the correct answer .

Recurrence of pterygium after simple excision(bare sclera technique) is about 80%.

Cornea

66- (c) is the correct answer .

The adult corneal endothelial cell density is about 2500 cells /mm²

67- (b) is the correct answer .

The causes of interpalpebral punctate epithelial erosions include:

- 1- Dry eye (can also be inferior) .
- 2- Reduced corneal sensation .
- 3- Ultra violet keratopathy .

While Toxicity to drops cause inferior or diffuse punctate epithelial erosions.

68- (d) is the correct answer .

The number of corneal endothelial cells decreases per year at about 0.6% .

69- (d) is the correct answer .

Causes of corneal filaments:

- 1- Dry eye is by far the most common.**
- 2- Superior limbic keratoconjunctivitis .**
- 3- Neurotrophic keratitis .**
- 4- Long – term ocular patching .**
- 5- Essential blepharospasm.**

70- (b) is the correct answer .

The bacteria that are able to penetrate a normal cornealepitheliuminclude:

- 1- N. gonorrhoea.**
- 2- N. meningitidis .**
- 3- C. diphtheria .**
- 4- H.influenzae.**

71- (c) is the correct answer .

Onchocerciasis (river blindness) is caused by infestation with the parasitic helminthonchocerca volvulus. Live microfilariae may be seen in cornea , aqueous and vitreous in up to 50% of patients .

Systemic ivermectin has a beneficial effect on at least the anterior segment ocular features .

72- (d) is the correct answer .

Clinical types of Rosacea :

- 1- Erythematotelangiectatic.**
- 2- Papulopustular .**
- 3- Phymatous .**

73- (d) is the correct answer .

The systemic diseases associated with peripheral ulcerative keratitis include:

- 1- Rheumatoid arthritis .**
- 2- Wegener granulomatosis .**
- 3- Relapsing polychondritis .**
- 4- SLE .**

74- (b) is the correct answer .

WHO grading of xerophthalmia:

- 1- XN=night blindness .**
- 2- X1=conjunctivalxerosis**
- 3- X2=corneal xerosis**
- 4- X3=corneal ulceration.**
- 5- XS= corneal scars .**
- 6- XF= xerophthalmic fundus .**

75- (d) is the correct answer .

Grading of keratocones by keratometry according to severity :

1- Mild (<48 D) .

2- Moderate (48 – 54D).

3- Severe (>54 D) .

Corneal and refractive surgery

76- (b) is the correct answer .

The percentage of alcohol used in laser epithelial keratomileusis (LASEK) is 20% and applied for 30-40 seconds.

77- (c) is the correct answer .

LASIK can correct:

- 1- Hypermetropia up to 4D .**
- 2- Astigmatism of up to 5D .**
- 3- Myopia of up to 12D .**

78- (c) is the correct answer .

The residual corneal base that must remain after the flap has been cut and tissue ablated in LASIK is 250 μm .

episclera and sclera

79- (d) is the correct answer .

Signs of posterior scleritis :

- 1- Exudative retinal detachment.**
- 2- Uveal effusion .**
- 3- Choroidal folds .**
- 4- Soretinal mass.**
- 5- Disc oedema.**
- 6- Myositis .**
- 7- Proptosis.**
- 8- Other features occasionally present include glaucoma, periorbital oedema, chemosis and conjunctival injection.**

lens

80- (a) is the correct answer .

The incidence of acute endophthalmitis following cataract surgery is approximately 0.3%.

81- (d) is the correct answer .

The indications for Nd : Yag laser capsulotomy include:

- 1- Diminished visual acuity.**
- 2- Diplopia or glare secondary to capsular wrinkling.**
- 3- Inadequate fundus view impairing diagnosis ,monitoring or treatment of retinal pathology.**

82- (c) is the correct answer .

**The Complication of Nd: Yag laser capsulotomy
include:**

- 1- Damage to the IOL .**
- 2- CME .**
- 3- Regmatogenous RD.**
- 4- IOP elevation .**
- 5- Posterior IOL subluxation or dislocation.**
- 6- Chronic endophthalmitis.**

83- (b) is the correct answer .

**Marfan syndrome:Mutation of the fibrillin – 1 gene
(FBN1) on chromosome 15q21.**

**Inheritance is AD with variable expressivity; a
minority of patients manifest only ocular
signs.**

Glaucoma

84- (d) is the correct answer .

The risk factors for primary open – angle glaucoma include:

- 1- IOP.The higher the IOP, the greater the likelihood of glaucoma .**
- 2- Age.More common in older individuals .**
- 3- Race.It is significantly (perhaps four times) more common , develops at an earlier age ,and may be more difficult to control in black individuals than in whites.**
- 4- Family history of POAG .**
- 5- Diabetes mellitus .**
- 6- Myopia.**
- 7- Vascular disease.**

85- (d) is the correct answer .

The risk factors for normal – pressure glaucoma include:

- 1- Age. Patients tend to be older than those with POAG, though this may be due to delayed diagnosis.**
- 2- Gender. Some studies have found a higher prevalence in females.**
- 3- Race. NPG occurs more frequently in Japan than in Europe or North America.**
- 4- Family history. The prevalence of POAG is greater in families of patients with NPG than in the normal population. Mutations in the OPTN gene coding for optineurin have been identified in some patients with NPG as well as patients with POAG.**
- 5- CCT Is lower in patients with NPG than POAG.**
- 6- Abnormal vasoregulation, particularly migraine and Raynaud phenomena ,have been found more commonly in NPG than POAG by some investigators; others have found abnormalities just as commonly in POAG.**
- 7- Systemic hypotension including nocturnal blood pressure dips of >20%, particularly in those on oral hypotensive medication.**

8- **Obstructive sleep apnoea syndrome may be associated, perhaps via an effect on ocular perfusion.**

9- **Autoantibody levels have been found to be higher in NPG patients than the general population by some investigators.**

86- **(b) is the correct answer .**

Neovascular glaucoma occurs after ischemic central retinal vein occlusion in intervals From 4 weeks to 2 years .

87- **(c) is the correct answer .**

Posner–Schlossman syndrome (glaucomatocyclitic crisis) is characterised by recurrent attacks of unilateral, acute secondary open angle glaucoma associated with mild anterior uveitis .

Posner–Schlossman syndrome is a rare condition typically affecting young adults, 40% of whom are positive for HLA-BW54 .

Gonioscopy shows an open angle.

88- (c) is the correct answer .

Phacolytic glaucoma(lens protein glaucoma)Is open-angle glaucomaoccurring in association with a hypermature cataract.

Trabecular obstruction is caused by high molecular weight lens protein which have leaked through the intact capsule into the aqueous humour.

89- (a) is the correct answer .

In hyphaema,secondary hemorrhage often more severe than the primary bleed ,may develop within 3 – 5 days of the initial injury.

90- (d) is the correct answer .

Most cases of primary congenital glaucoma (PCG) are sporadic. In approximately 10% inheritance is AR with incomplete penetrance.

Although PCG is the most common of the congenital glaucomas,it is still a very rare condition ,affecting 1:10000 births .65% of patients are boys .

Both eyes are affected in 75% of cases although involvement is frequently asymmetrical .

91- (c) is the correct answer .

Sturge- Weber syndrome
(encephalotrigeminalangiomatosis) is a
congenital , sporadic phacomatosis .

Glaucoma develops in about 30% of patients
ipsilateral to facial heamangioma, especially if
the lesion affect the upper eyelid .

92- (a) is the correct answer .

**Systemic side effects of systemic carbonic acid
inhibitors:**

1- **Paraesthesia** characterized by tingling of the
fingers, toes, hands or feet ,and are
occasionally at the mucocutaneous junctions
,is universal finding and usually
innocuous. Compliance is suspect if the patient
denies this symptom.

2- **Malaize complex**

3- **Gastrointestinal complex**

4- **Renal stone formation**

5- **Steven-Johnson syndrome**

6- **Blood dyscrasias**

7- **Hypokalaemia**

93- (b) is the correct answer .

Argon laser trabeculoplasty (ALT) is performed in open – angle glaucoma's ,usually as an adjunct to medical therapy .

ALT is ineffective in pediatric glaucoma and in most secondary glaucomas,with the exception of pigmentary and pseudoexfoliation.

94- (a) is the correct answer .

The complications of argon laser trabeculoplasty include:

- 1- Peripheral anterior synechiae .**
- 2- Small hemorrhage .**
- 3- Acute elevation of IOP.**
- 4- Anterior uveitis .**
- 5- Adverse effect on subsequent filtration surgery.**

uveitis

95- (d) is the correct answer .

Causes of heterochromia iridis:

1- Hypochromic

- **Idiopathic congenital .**
- **Horner syndrome , particularly if congenital .**
- **Waardenburg syndrome .**

2- Hyperchromic

- **Unilateral use of topical prostaglandin analogue for glaucoma.**
- **Oculodermalmelanocytosis (naevus of Ota).**
- **Ocular siderosis.**
- **Diffuse iris naevus or melanoma.**
- **Sturge Weber syndrome .**

96- (d) is the correct answer .

Behcet syndrome(BS) Is an idiopathic, multi system diseasecharactericed by recurrent episodes of orogenital ulceration and vasculitis which may involve small, medium and large veins and arteries.

Is strongly associated with (HLA) B51 .

Ocular complication occurs in up to 95% of men and 70% of women.

97- (c) is the correct answer .

Modified diagnostic criteria for VKH syndrome:

- 1- Absence of a history of penetrating ocular trauma .**
- 2- Absence of other ocular disease entities .**
- 3- Bilateral uveitis .**
- 4- Neurological and auditory manifestation .**
- 5- Integumentary findings, not preceding onset of central nervous system or ocular disease ,such as alopecia, poliosis and vitiligo.**

98- (d) is the correct answer .

Fuchs uveitis syndrome (FUS) is a chronic non-granulomatous specific uveitis entity which is usually unilateral. It has an insidious onset, occurs mostly in the third to fourth decades and affect both sexes equally .

99- (c) is the correct answer .

HLA type and systemic disease :

Over 95% of patients with Birdshot chorioretinopathy are positive for HLA A 29.

Behcet syndrome =HLAB 51.

Spondyloarthropathies , particularly ankylosing spondylitis= HLA B 27 .

100- (c) is the correct answer .

Iris nodules typically occur in granulomatous disease.

- **Koeppe nodules are small and situated at the pupillary border.**
- **Busacca nodules involve the iris stroma.**
- **Large pink nodules are characteristic of sarcoid uveitis .**