

GROUP-47

Ophthalmic Assistant (Level of Exam- Matric+ Diploma in Ophthalmology)

1) General awareness, Reasoning, Mathematics, Science, History including Haryana related history, current affairs, literature, Geography, Civics, Environment, Culture etc. -

(Weightage 20%)

2) Computer terminology, Fundamentals, word software, excel software, Power point, internet, web browsing, Communication, emails, downloading and uploading data on websites etc. -

(Weightage 10%)

3) Subject related syllabus-

(Weightage 70%)

BASIC MEDICAL SCIENCE-OPHTHALMOLOGY

1 Anatomy and Physiology- Human anatomy with special reference to special senses.

a) Parts of the body

b) Organs of special senses

c) Orbit and ocular adnexa (lid and lacrimal system)

d) Ocular muscles and cranial nerves

2) Gross anatomy of coats of eyeball (cornea, sclera, uvea, retina, lens and vitreous)

a) Physiology of eyeball 1) Physiology of vision including colour vision

b) Ocular movements & binocular vision

c) Accommodation and convergence

d) Formation and circulation of aqueous & lacrimal fluids

3) Microbiology

a) Introduction to the various organisms responsible for ocular diseases (bacteria, virus and fungi)

b) Techniques of conjunctival smears, cultures, scrapings and staining (grams and KOH)

c) Infections and its prevention-routes, gross infection and antisepsis and asepsis

4) Clinical pathology 1) Examination of urine-gross albumin and sugar 2) Preparation and staining of blood slides for DLC and malarial parasites

5) Pharmacy

a) Various methods of administration of drugs in ophthalmic diseases b) Preparation and dispensing of various ophthalmic drugs including fluorescein, mercurochrome, sodium sulphacetamide, homatropine, atropine, pilocarpine and antibiotic drops c) Various side reaction of common ophthalmic drug and drug abuses. d) Ocular anaesthetics e) Miotics and mydriatics

OPHTHALMIC EQUIPMENTS AND TECHNIQUES

1. Vision testing.

a. Various components of vision, principles of testing for visual acuity. b. Lecture demonstration of distant vision, near vision and colour vision [Ishihara]

2 Visual fields:

A. Lecture and demonstrations B. Examination.

3. Ophthalmic instruments:

A, Name, uses and maintenance of surgical instruments. B. Laying of trolley for surgery [CATARACT, glaucoma, sty, pterygium, chalazion, entropion, and squint]. C. Maintenance of surgical instruments.

4. Ocular surgery, fundamental of asepsis technique:

A. Asepsis, fumigation and sterilization of instruments. B. Making of swabs sticks, pads and packing of drums and autoclaving.

5.Ophthalmic diagnosis equipment [maintenance]:A. Trial set, slit lamp, focimeter.B. Synoptophore ,keratometer, retinoscope and ophthalmoscope.C. Examination.D. Use of lensometer and neutralisation of lenses.E. Transposition of lenses. F. Fitting and check-up of spectacles. G. Maintenance of tonometer.

6.Minor surgical procedures:

A. Installation of eye drops and subconjunctival injection etc.B. Fomentation.C. Irrigation.D. Epilation.E. Syringing.F. Setting up of iv drip. Ryle's tube and enema.

7.EMERGENCY RESUSCITATION: general and ophthalmic

OPTICS AND REFRACTION

1. Physics & optics.

a.Law of refraction & reflection spherical & cylindrical surfaces.b. Optical aberrations of ophthalmic glasses.c.Prisms-Nomenclature-Uses

2.Geometrical & physiological optics.

a. Optics of human eye and refractive errors.b. Myopia, hypermetropia & its correction.c. Aphakia its correction.d. Astigmatism, presbyopia & its correction.e. Lecture demonstration on measurement of accommodation & convergence.f. Ophthalmic lenses.g. Decentring, bifocals, segment heights & transposition of lenses.h. Contact lenses- uses and abuses. I. Checking of spectacles.j. Protective glasses & L.V.A.

3.Retinoscopy & subjective testing.

a. Estimating optical refractive errors including persorption of glasses

COMMON OCCULAR DISEASE AND COMMUNITY OPHTHALMOLOGY

1. Common eye diseases.

a. Types of conjunctivitis including trachoma. b. Corneal ulcers & opacities. c. Iritis & cataract. d. Lids & lacrimal sac. And eye emergencies. e. Chemical & radiational injuries including prevention, first aid & treatment. f. Mechanical injuries, prevention first & treatment.

2. Glaucoma.

a. Recognition & diagnosis. b. Topometric methodology & precautions. c. Role of ophthalmic assistant in early detection and follow up of glaucoma cases.

3. Squint.

a. Nomenclature, classification & measurement. b. Cover test, Maddox rod, madoz wing & diplopia charting. c. Uses of synoptophore& exercises. d. Amblyopia with special emphasis on prevention. e. Assessment of binocular vision.

4. Systemic disorders.

a. diabetes & hypertension.

5. Nursing care of ophthalmic patients.

a. pre-operative preparation, cutting or lashes, preparation eye and ocular bandaging. b. Bed making and laying trolley for dressing.

6.Medical records.

a. Diseases index, alphabetic index, and numerical index, major & minor surgical records.

7.Health education.

a. National plan for control of blindness. b. Screening of school children for eye problems. c. Servery methodology. d. Functioning of eye bank (collection, preservation, transportation & publicity) e. Rehabilitation of blind & vocational training for blind. f. Role of ophthalmic assistants in eye camps.

Important Note: The Weightage as mentioned against the syllabus is tentative & may vary.