



Jharkhand State Paramedical Council

RIMS Campus, Bariatu, RANCHI 834009

Tele-Fax:0651-2544027

E-mail: jspcranchi@gmail.com

Module 5 : Introduction to the hospital Information System

Definition of Hospital Information system, Architecture of a HIS, aim and uses of HIS, types of HIS

Benefits of using a hospital information system.

Basics of Computer (Practical)

Module 1: Introduction to Microsoft Word

Type a text of document save the document. Align the text with different formats. Align the text with different formats using Microsoft Word. Inserting a table ensuring Proper alignment of the table using MS word.

Module 2: Microsoft Power Point

Preparing a slide show with transition, animation and sound effect using MS – Power point. Customizing the slide show by inserting pictures and tables in the slides using MS – Power Point.

Module 3: Introduction to the Internet

Create an e – mail account. Use the internet to search for a subject of interest.

Theory Paper II (100 Marks)

Part A (50 marks)

Diploma in Ophthalmic Assistant

1. Ocular anatomy
 - (i)Development of the eye
 - (ii) Orbit and its immediate relation
 - (iii) To ocular adnexa
 - (a)Eyelids
 - (b)Lacrimal apparatus
 - (iv)Conjunctiva, cornea and sclera
 - (v) Iris and ciliary body
 - (vi) Lenses and vitreous
 - (vii) Retina and choroid
 - (ix) Cranial nerve and higher centre
 - (x) Autonomic nervous system – sympathetic and para sympathetic supply to the eye
 - (xi) Visual pathway
 - (xii) Vascular supply of eye
2. Ocular physiology :
 - (i)Physiology of vision including colour vision
 - (ii) Ocular movements and binocular vision
 - (iii) Accomodation and Convergence
 - (iv) Formation and circulation of aqueous and lacrimal fluid
3. Ocular Biochemistry
 - (i) Introduction of various biochemical tests
 - (ii) Sampling and collection of blood



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- (iii) Tear film and Ph
- (iv) Biochemical test including blood sugar estimation
- 4. Ocular Pathology
 - (i) Haematology
 - (a) Blood collection techniques
 - (b) Hemoglobin estimation
 - (c) Preparing and standing slides for total and differential leucocyte Count
 - (d) Bleeding time and clotting time
 - (ii) Urine examinations
 - (a) Urine collection method
 - (b) Physical and chemical examinations specific for albumin and Sugar
 - (c) Collection and preserving tissue for histopathological examination
- 5. Ocular Microbiology
 - (i) Introduction to various organisms responsible for ocular diseases (Bacteria Viruses and Fungi)
 - (ii) Techniques for conjunctival smears, cultures, scrapping and staining (Kveim's and KOH)
 - (iii) Routes of infections and its preventions
 - (iv) Cross infections
 - (v) Antisepsis
- 6. Ocular pharmacology and pharmacy
 - (i) Routes of drug administration and pharmacy
 - (ii) Miotics, Mydriatics and Cycloplegic drugs
 - (iii) Antibacterial drug and therapy
 - (iv) Antiviral drug and therapy
 - (v) Antifungal drug and therapy
 - (vi) Antiinflammatory drug and therapy
 - (vii) Antiglaucoma drug and therapy
 - (viii) Ophthalmic dyes
 - (ix) Drugs for ocular anaesthesia and akinesia
 - (x) Ocular lubricants
 - (xi) Ocular irrigating solutions
 - (xii) Ocular antiseptic and disinfection
 - (xiii) Preparation and dispensing of various ophthalmic durg
 - (xiv) Various actions and side effects of common ophthalmic drugs
 - (xv) Contact lens solution



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7. Vision testing
 - (i) Various components of vision
 - (ii) Principle and method for testing of visual acuity
 - (iii) Test of colour vision
 - (iv) Test for visual field
8. Physical of Physiological optics
 - (i) Principles of refraction
 - (ii) Shapes of lens-convex, concave
 - (iii) Emmetropic and ametropic-etiology, population, distribution, growth of the eye
 - (iv) Myopia
 - (v) Hypermetropia
 - (vi) Astigmatism
 - (viii) Aphakia/pseudophakia
 - (ix) Keratocorns
 - (x) Post-operative refractive errors
 - (xi) Refraction of irregular reflex
 - (xii) Accommodation and convergence
 - (xii) Retinoscopy – principle and methods
 - (xiii) Objective refraction
 - (xiv) Objective refraction
 - (xv) Subjective refraction
 - (xvi) Cross cylinder
 - (xvii) Transposition of lenses
 - (xviii) Low vision aids

Part B (50 Marks)

1. . COMMON EYE DISEASES
 - (i) Lid and lachrymal apparatus
 - (ii) Conjunctiva diseases including trachoma
 - (iii) Corneal disease especially corneal ulcer
 - (iv) Diseases of Iris, Ciliary body and choroid
 - (v) Catatact- (a) investigation and diagnosis
(b) Role of OA for referral of patients for cataract surgery
 - (vi) Glaucoma
 - (a) Recognition and diagnosis
 - (b) Tonometry



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(c) Role of OA for early detection and follow up of glaucoma patients

(vii) Squint

(a) Nomenclature, classification and measurement

(b) Cover test, Maddox rod, Maddox wing and Diplopia charting

(c) Use of synoptophore and exercises

(d) Amblyopia with special emphasis and prevention

(e) Assessment of binocular vision

2. Systemic diseases affecting eye especially diabetes and hypertension

3. Ocular emergency

4. OPHTHALMIC INSTRUMENTS AND APPLIANCES

(i) Trial set

(ii) Retinoscope

(iii) Indirect ophthalmoscope

(iv) Direct ophthalmoscope

(v) Slit lamp

(vi) Photoslit lamp

(vii) Lensometer, lens gauge

(viii) Tonometer

(ix) Fundus camera

(x) External eye photography

(xi) Autorefractometer

(xii) Placido disc

(xiii) Keratometer

(xiv) A- Scan

(xv) Specular microscopy

(xvi) Exophthalmometer

(xvii) Perimeter – Manual and automated

(xviii) Orthoptic instrument

(xix) Heidelberg retinotomography – HRT II

(xx) Heidelberg Anclomscope

(xxi) Pachymeter

(xxii) Contrast sensitivity test

(xxiii) Glare acuity test

(xxiv) Colour vision test

(xxv) Dark adaptometer

(xxvi) Low vision aids – Techniques and microscopes



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8. INVESTIGATION IN OPHTHALMOLOGY

- (i) Ultrasonography
- (ii) Tonography
- (iii) Flurescein angiography
- (iv) Syringing and lacrimal function test
- (v) Dark adaptometry
- (vi) Gonioscopy
- (vii) Pachymetry
- (viii) Perimetry
- (ix) Laser therapy
- (x) Contrast sensitivity
- (xi) Slit lamp
- (xii) Specular microscopy
- (xiii) Funds photography
- (xiv) Colour vision investigations – Ishihara charts
100-Hue test
- (xv) A-Scan biometry
- (xvi) Non-contact tonometer
- (xvii) Heidelberg retinoscopy – HRT II
- (xviii) OCT

9. EYE BANKING

- (i) Function of Eye bank
- (ii) Publicity
- (iii) How to donate your eyes
- (iv) Collection of eyes
- (v) Preservation of eyes
- (vi) Transportation of eyes
- (vii) Preoperative instructions
- (viii) Post operative instructions
- (ix) Latest techniques for preservation of donor cornea

10. COMMUNITY OPHTHAMOLOGY

- (i) Eye screening programme and survey
- (ii) School eye screening programme



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- (iii) Epidemiology of blindness
- (iv) Survey methodology
- (v) Organization of eye camp
- (vi) Information, education, communication
- (vii) Rehabilitation of visually handicapped and vocational training for blind
- (viii) National programme for control of blindness
- (ix) Vision 2020 – The right to sight

11. MANAGEMENT OF EYE OT

- (i) Asepsis – How to achieve
- (ii) Anaesthetic agents and where indicated
- (iii) OT sterilization procedures
- (iv) Sterilisation procedures of OT instrument
- (v) Maintenance of ophthalmic instruments and equipments
- (vi) Maintenance of orthoptics instrument and equipments
- (vii) Maintenance of surgical instruments

12. Ophthalmic Surgical Procedure :

- (i) Role of ophthalmic assistant in OT
- (ii) Preparing trolley for surgery of cataract, glaucoma, Lacrimal sac
Pterygium, Chalazion, entropion ectropion, squint and others.
- (iii) Minor Surgical Procedures

10. Nursing care of Ophthalmic patients:

- (i) Preoperative preparation
- (ii) Ocular bandaging
- (iii) Bed making

PRATICAL : (100 MARKS)

VIVA : (100 MARKS)

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झारखण्ड राज्य पारामेडिकल परिषद

Jharkhand State Paramedical Council

रिम्स चिकित्सक आवास परिसर, बरियातु, राँची-834009, झारखण्ड, भारत
RIMS Doctors' Colony Campus, Bariatu, Ranchi-834009, Jharkhand, India

E-mail: jsperanchi@gmail.com Tele-Fax:-0651-2972681



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सभी डिप्लोमा पाठ्यक्रमों का Paper-I, Common रहेगा, जबकी
विषयवार Paper-II का सिलेबस अलग-अलग रहेगा।
