

Original Opthalmology Syllabus Given by CPSP

- ✓ Clear FCPS-1 in FIRST ATTEMPT
- ✓ Entire course will be completed in 2 months.
- ✓ Live lectures via video Portal
- ✓ Daily Test session (Test discussion will be on Via Portal)
- √ Follow our complete guideline for FCPS-1
- ✓ Get Hands on 20,000 CPSP question (most of them repeat)
- ✓ Free study material, whatsapp group (only for our students)
- ✓ Don't Miss the chance. (LIMITED SEATS AVAILABLE.)
- √ WWW.FCPSWORLD.com
- √ <u>WWW.facebook.com/fcpsworld</u>
- √ For Details Phone# 03129684658

The outline of various topics given in this syllabus is a guide to what at the moment are considered to be important topics which the candidate is expected to know. This is to help both the candidate and the examiner in defining the minimum boundaries of FCPS Part-I examination.

PAPER I

I. ANATOMY

- 1. Features and Functional Anatomy:
 - Bone
 - Muscle
 - Joints
 - Major blood vessels
- 2. Embryology General aspects.
- 3. Histology General Structure:
 - Types of tissue
 - Epithelia
 - Muscles
 - Nerves
 - Blood vessels
 - Fibro fatty tissue
 - Lymph glands

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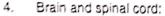
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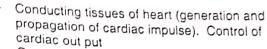


- Gross structure
- Spinal nerves origin and distribution
- Cranial nerves
- Vertebral Column Features
- Head and Neck Structures.
- 6. Viscera: Gross structure, Blood and Nerve Supply:
 - · Heart and Pericardium
 - Lung, Pleura and Mediastinum
 - Kidney
 - Liver
- Anatomical outline, Blood Supply and innervation of Respiratory tract.
- 8. Endocrine glands anatomical structure Pituitary Thyroid, parathyroid and adrenal glands.

II. PHYSIOLOGY & BIOCHEMISTRY:

- General Physiology:
 - Components of cell and cytoplasm with their functions (in general) and transport across cell membrane.
 - Nerve action potential, Muscles contraction Classification and properties of nerve fibres
 - Receptors, types, properties and functions
 - Somatic sensation Transmission of pain
 - Function of motor and sensory areas, Pain pathway Cerebrospinal fluid (CSF) - formation, functions, drainage
 - Autonomic nervous system (outflow and responses of effected organs)
 - General properties and composition of blood
 - Normal counts and functions of RBCs, WBCs, platelets
 - Mechanism of homeostatic coagulation factors and their actions
 - Blood groups (types, antigens, antibodies, phenotype, genotypes and significance)





Cardiac cycle (pressure, volumes, vulvular changes).

- Blood pressure and its regulations (general).

 Respiratory and non-respiratory function of respiratory tract. Regulation of Respiration, Transport of gasses.

 Body fluids, compartments and regulations of osmotic equilibrium especially pleural and peritoneal.

 Regulation of E.C.F. and blood volume and flow - Peripheral circulation.

- General functions of kidney.

Regulation of body temperature.

2. Pharmatology:

- General principles of rational drug therapy, Clinical pharmacokinetics.
- Adverse reactions of common drugs.

Biochemistry:

- Requisites of a balanced diet
- General principles of electrolyte balance
- Role and function of endocrine hormones feed back mechanism.
- Metabolism of carbohydrate, proteins, fats and vitamins Metabolic pathway.

III. PATHOLOGY INCLUDING MICROBIOLOGY:

- 1. Effects of injury on cell by physical, chemical and biological agents.
- 2. Inflammation:
 - Acute
 - Chronic including granulamatous
- 3. Regeneration and Repair.



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- 5. Disturbance of homeostatic mechanism
 - Haemorrhage and Shock mechanism and types
 - Oedema
 - Disturbance of fluids and electrolytes
- 6. Thrombosis and embolism, Infarction and gangrene
- 7. Disorders of growth Adaptation, Atrophy, hypertrophy, hyperplasia
- 8. Carcinogens and pre-malignant lesions
- 9. Neoplasia: General classification and spread of tumor
- 10. General aspects of tumor markers
- General characteristics of bacteria, viruses, Chlamydia, recketsia, parasites and fungi
- 12. Immunology and immune system: General principle
- Medical genetics basic concept
- Interpretation of routine Biochemical tests e.g. liver function test, glucose, urea, creatinine
- 15. Nutritional disease: deficiency of vitamins and minerals

IV. RESEARCH AND BIOSTATISTICS - BASIC CONCEPTS

Epidemiology:

- An introduction to Epidemiology and its role in understanding distribution and determinants of disease.
- Measures of disease occurrence
- Screening





Blostatistics:

- Introduction to Biostatistics
- Data and its kinds
- Summarization of data
- Normal Distribution
- Point and Interval estimation and Probability
- Hypothesis testing, significance level and power

V. BEHAVIOURAL SCIENCE AND **MEDICAL ETHICS - GENERAL** PRINCIPLES

- Medical Ethics
- Communication skills including Doctor Patient relationship and counseling
- Psycho social aspect of general health care

PAPER II (OPHTHALMOLOGY (FCPS-I)

ANATOMY

Embryology:

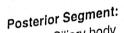
- Brain
- Eye

Histology:

- Eye

Anterior Segment:

- Conjunctiva
- Cornea
- Selera
- Iris and pupil
- Limbus and angle of AC
- Lens and Zonule



- Ciliary body
- Choriod
- Vitreous
- Retina
- Optic nerve

Cranuim:

- Foramina
- Nerves

Brain - Visual Cortex:

- Visual Cortex

Visual Pathneay

II. PATHOLOGY

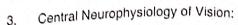
- Neoplasia:
 - Etiology
 - Tumor Immunity
 - Laboratory diagnosis of cancer
- Genetics:
 - Transmission patterns
 - Cytogenetic disorders
 - Diagnosis of Genetic diseases
- Environmental factors leading to Eye disease:
 - Pathogenesis of Hypertension
 - Effect on Eye
- Vasculitides related to eye giant cell (temporal) artiritis.

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- 5. Hypersensitivity reactions.
- 6. Auto-immune diseases.
- 7. Immuno-deficiency disease.
- 8. Bleeding and coagulation disorders.
- 9. Jaundice.
- Precautions in cases of Hepatitis B and C.

III. PHYSIOLOGY

- 1. Nervous System:
 - Cerebral cortex Functions of Specific cortical areas
 - Motor cortex and cort cospinal tract
 - Organization and function of visual cortex
 - Role of brain stem in controlling motor function
 - Function of cerebellum and basal ganglia
 - Limbic system and hypothalamus
 - Role of Hypothalamus in regulation of body temperature
- 2. The Eye:
 - Principle of optics
 - Fluid system of Eye
 - Movement of Eye ball: Blinking Types and control
 - Receptor and Neural function of retina
 - Photochemistry of vision
 - Colour vision



- Visual acuity
- Fields of vision
- Near Vision
- Autonomic control of Accommodation and papillary aperture - light and dark adaptation:
 - Cerebral blood flood
 - Cerebrospinal fluid Formation
 - Pulmonary Ventilation
 - Pulmonary circulation
 - Pulmonary capillary dynamics
 - Ventilation profusion ratio
 - Transport of O2 and CO2 in blood Hypoxia
 - Regulation of respiration

5. Endocrine:

- Regulation of Thyroid Metabolism Hyperthyroidism
- Pituitary hormones
- Effect of Insulin and Glucagons Diabetes Mellitus
- Role of Parathyroid hormone on calcium and Phosphate Homeostasis

6. CVS:

- Regulation of heart functioning
- Control of Blood pressure Mechanism
- Role of kidney in long term regulation of arterial pressure
- Lens Metabolism Transparency
- Corneal Metabolism Transparency
- Binocular Vision
- 7. Control of G.I.T. Secretions







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Join Us and Increase your chance to Clear Part-1 in 1st Attempt