পেডিয়েট্রিক্স ফ্যাকাল্টি

Post For Freshers
FCPS Part 1 in Paediatrics
Preparations Guildline

SYNAPSE
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Day-1 Syllabus

Paediatrics এর Syllabus নিয়ে অনেকের ই Confusion আছে, কিন্তু সত্যি কথা হলো, BCPS Paediatrics এর syllabus ১০০% Follow করে,আপনারা একটু খেয়াল করলে দেখবেন, Previous year এ সবকিছু ই Syllabus থেকেই আসা। তাই ১ম Mandatory study materials "Syllabus "।

Not PDF, এটা আপনারা Print করে নিবেন, প্রতিদিন পড়ার সময় নিয়ে বসবেন। এটার বেনিফিট পরীক্ষার সময় বুঝতে পারবেন। BCPS এর সিলেবাস দেখলে খুব সুন্দর একটা ধারনা পাওয়া যাবে.. বোঝা সহজ হবে কোন পেপারে কোন সাবজেক্ট থেকে কতটা প্রশ্ন আসে এবং কোন টপিক্স থেকে বেশি প্রশ্ন আসে!

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বই

- Abid mollah sir 5th edition -Must
- MR mollah 3rd/4th Edition(থাকলে ভালো)
- Step to Paediatrics by Biplob Kumar Raha
  (Questions bank-4th edition)- Must
- #Sypnase SBA Master Book
- #Synapse Basic Subject Sheet
- Langmen Embryology -For clinical embryology -must
- Biostatistics note -must (8-10marks আসে) এটা না পড়ে পাস হবে না।
- Selim Reza - For histology (পুরানো হলে ও চলবে)
- Snell Neuroanatomy
- BRS Physiology (Physiology ভালো concept develop করতে হবে।
  এর কোনো short cut নেই)
- Clinical Biochemistry & Pharmacology

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- (Syllabus অনেক বড়,এর থেকে প্রশ্ন কম কমন পড়ে। কিছু টা Luck
  তবে আপনার ভালো পড়া থাকলে ভাগ্য আপনার সহায় হবে)

- Study materials :

  Sheet/ ABC biochemistry / coaching lecture / vision pharmacology / Google /previous year questions.

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Episode-2

Histology:

Its A love! পড়া সহজ, অনেক Marks & অনেক common আসে।

Most important :

Lining epithelium, Glands

Connective tissues

Cartilage

Capillary

Brown fat

Histology of all lymphoid organ

Skin & its appendages

Cell Biology : অল্প পড়া কিন্তু বেশি নাম্বার। এটা পেপার ২ এর জন্য ও লাগে।
তাই প্রতিটা Topic গুরুত্বপূর্ণ।

What to study :

Cell structures with its functions

Eg:

-Cell membrane

-Mitochondria

-Cytoskeleton

-Specializations of Apical surface

intercellular Junctions

-Cell division

-Cell cycle (Interphases)

-RER

-SER

-Golgi Complex

-Lysosome

-Centrioles & related clinical correlation & Anomalies (eg.Down syndrome, klinefelter syndrome) হিস্টোলজির গুরুত্ব অনেক।এখান থেকে প্রচুর প্রশ্ন আসে। শুধু হিস্টোলজি পড়ে গেলেই ৩০-৪০% প্রশ্ন কমন আসে!তাই এটাকে আয়ত্ত্বে আনার কোন বিকল্প নেই।

পেডিয়েট্রিক্স ফ্যাকাল্টি

Sturdy Materials:

-শীট

-সেলিম রেজার হিস্টোলজি বই

- Questions Solve

Embryology : (Developmental anatomy)

এটার মধ্যে General & clinical embryology পড়া হয়।

What to study:

General embryology :

- Fetal circulations & its change after birth
- Placental & its function
- Multiple pregnancy
- Derivatives
- Cell Division
- Gametogenesis
- Fertilization
- Weeks of development
- Fetal membranes
- Teratogens

Systemic Embryology :

- Development of face & anomalies
- Development of diaphragm & anomalies
- Development of heart & anomalies
- Fetal circulations & changes after birth & Anomalies
- Tetralogy of Fallot's
- Development of pancreas
- Development of tongue
- Development of kidney &
- Developmental anomalies of different organs

পেডিয়েট্রিক্স ফ্যাকাল্টি

Sturdy Materials:

- Basic Lecture sheet
- Langman (Few topics)
- BRS embryology
- Questions solve

Clinical Neuroanatomy

পেপার১,২,৩ তিনটাতেই Neurology থেকে প্রশ্ন আসতে পারে।

What to Study:

Blood supply of brain
Lumber puncture
CSF circulation
Neuroglial cells
Cerebellum -Parts , Function, Lessions
Basal ganglia -Parts , Function, Lessions

Study materials :

- শীট(গুছিয়ে নিতে হবে)
-Snell clinical Neuroanatomy (পড়তে পারলে খুবই ভালো)
-Questions solve করতে হবে কারন একই প্যাটার্নের প্রশ্ন বার বার আসে।

পেডিয়েট্রিক্স পার্ট-১

Episode-3

General Anatomy:

এইখানে পড়া অনেক But Marks কম, কিন্তু পড়া Skip করার উপায় নেই। Question solve করতে গেলেই Most Important Topics বুঝতে পারবেন। যাদের এই part টা কম পড়া তারা শুধু Suggestions গুলো & Question Solve করলেও ৭০--৮০% Gross anatomy common Histology of all lymphoid organ পাবেন। কিন্তু Anatomy মুখস্ত করার বিষয় নয়। যতটুকু ই পড়তে হবে, বুঝে Co relate করে পড়তে হবে।

General Anatomy:

(Thorax, Abdomen, Upper & Lower extrimity, Head & neck)

Thorax:

এখান থেকে খুব বেশি প্রশ্ন আসে না! কিছু Topic থেকে Repeated Question হয়।

What to study :

- Muscles of inspiration
- Root of the lung
- Blood supply of lung
- Content of superior, middle & posterior mediastinum
- Vagus nerve -Details
- Openings of diaphragm
- Gross anatomy of Heart
- Development of Heart & related developmental anomalies.
- Congenial heart diseases
- Thoracic duct
- Structure crosses arch of aorta.

পেডিয়েট্রিক্স পার্ট-১

Abdomen:

এখানে থেকে Clinical Related Topics থেকে প্রশ্ন আসে বেশি! যেসব Organ এ বাচ্চাদের Disease বেশি হয় সেসব অর্গান থেকেই এনাটমি বেশি আসে।

What to study :

- Undescended testes
- Superficial inguinal lymph node
- Porta hepatis
- Portal vein tributaries
- Porto-Systemic anastomosis
- Blood supply of anterior abdominal wall
- Inguinal canal - content & formation
- Rectum
- Anal canal
- Stomach bed
- Coeliac trunk
- Structure pass through greater & lesser sciatic foramen
- Mickel' diverticulum

Study Materials :

- যেকোন এনাটমির বই (BD/V Singh)
- Previous year Questions solve
- (একই প্যাটার্নে বার বার প্রশ্ন আসে)

FCPS Part-1

Paediatrics

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Our Ongoing Courses...

MD/MS RESIDENCY	FCPS P-I
COMBINED BATCH	DIPLOMA.M.PHIL
MRCP/MRCS	DAVIDSON'S REVIEW
BAILEY & LOVE'S REVIEW	DC DUTTA & JEFFCOATE REVIEW
MR MOLLA & ABID HOSSAIN MOLLAH	BCS PRELIMINARY

Synapse Publications

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4A (1st Lift-3rd Floor), Dilara Tower, (Near of Eastern Plaza)
77 Bir Uttam C.R. Dutta Road, Hatirpool, Dhaka

BANGLADESH COLLEGE OF PHYSICIANS & SURGEONS

67, SHAHEED TAJUDDIN AHMED SARANI
MOHAKHALI, DHAKA-1212, BANGLADESH

SYLLABUS FOR
FCPS: PART –I (PAEDIATRICS)

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Admission & Service Related Helpline

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Admission Department	Ataur Rahman Azizur Rahman	01968-206771 01831-738286 01844-232787
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FCPS P-I (Surgery, Paediatrics, Gynae, ENT, Physical Medicine, Radiology)	Nazrul Kazi Ibrahim Khan	01978-303376 01844-232779 01929-865603
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Diploma/ Mphill	Mohammad Raihan	01976-303380 01844-232780
MRCP + MRCS	Razib Rahman Omayer Hossain	01978-303374 01844-232778

বিশেষ দ্রষ্টব্য -সিন্যাপসের অফিস আওয়ার **সকাল ১০ থেকে রাত ৮টা পর্যন্ত**। একাডেমিক ও ভর্তি তথ্যসহ যেকোন প্রয়োজনে এই সময়ের মধ্যে ফোন দেয়ার অনুরোধ রইলো। অফিস আওারের পরে যোগাযোগের ক্ষেত্রে নাম্বারগুলো বন্ধ পেলে অনুগ্রহ করে উক্ত ফোন নাম্বারে একটি এসএমএস দিয়ে রাখবেন, পাশাপাশি আমাদের ফেইসবুক পেইজে এসএমএস দিতে পারেন। পরবর্তীতে আপনার সাথে যোগাযোগ করা হবে। আপনাদের সর্বোচ্চ সার্ভিস দেয়ার জন্য আমরা বদ্ধপরিকর।

Syllabus for FCPS –Paediatrics

The objective of FCPS- Paediatrics will be to find out person who –

- is able and willing to take responsibility for the management of all range of acute and chronic condition in paediatrics,
- has the ability to adopt a problem-solving approach to clinical situation.
- is able to plan and interpret a program of investigation appropriate to the Clinical situation with due regards to patients comfort, safety and economic capability,
- has the up to date knowledge on the recent developments in allied branches and the skill of using the available technology for the betterment of the sick child,
- is aware of the role of the pediatrician in health/welfare professional team and the society and has the willingness to work co-operatively within such team,
- has acceptable communication skill for patient-doctor, relation-doctor, nurse-doctor and doctor-doctor relation,
- has the intention for maintenance and further development of own knowledge and skill through continuing education.

Evaluation of the necessary knowledge and skill will be assessed through two stages:

Part-I: This part will assess the basic knowledge and skill appropriate for the subject. This will include applied basic science as detailed below in the course content together with behavior, attitude and communication skill. These aspect will be assessed through:

Written examination
Practical examination:

Part-II: This part will assess advanced skill of data collection (both clinical and laboratory), interpretation, judgment and decision making. This will be evaluated through:

- Written examination
- Clinical examination
- Structured oral examination /OSCE

The Part-I examination will comprise of following three written papers:

- **Paper-I:** Anatomy, Behavioral Science, Medical Statistics and Communication Skill
- **Paper-II:** Physiology, Clinical Biochemistry and Clinical Pharmacology
- **Paper-III:** Pathology (Microbiology, Immunology, Virology, Genetics, Molecular biology and Histopathology,

In the following section the course content for each paper is elaborated sometimes showing the functional aspect of it. Each of the paper ends with a table showing distribution of question for theory paper on each section.

Course content
Paper – I: Anatomy, Behavioral Science, Medical Statistics and Communication Skill

Points to remember:

- Following are the course content for FCPS part-I in Paediatrics in paper-I. The contents should be approached which is relevant to Paediatrics discipline and not for surgical or other true basic science discipline.
- In the study of different parts/organs; blood supply, lymphatic drainage structural relations are excluded (except in places clearly mentioned in the content). However, nervous and endocrine controls are retained.
- Identification of viscera and body parts are excluded from the examination.

Cell biology: structural details of a cell with functional implications, cell cycle, cell division and its anomalies.
Recommended reading: Basic Histology -Janquera; Basic Histology-Ross; Gray's Anatomy

Developmental anatomy (general): Anatomical relevance of the following physiological aspects- period of life, fetal circulation and changes at birth, placental function, multiple pregnancy and general and proportional growth and development of body features from birth (as differentiated from adulthood) with emphasis on sexual maturity.

Recommended reading: Embryology- Langman's and Moore's

Developmental anatomy (Special): development of important parts and organs, specially the gonads, vital organs and bones, mechanism of developmental anomalies of different organs

Recommended reading: Embryology- Langman's and Moore's

General anatomy (systemic approach to the body structures):
Basic ideas on tissues

Osteology- histology, development and its anomalies, important ossification centers,

Angiology including lymphoid system- circulation through special organs like brain, heart, kidney, liver, spleen, gut and lungs. General plan of the lymphatic drainage, and important groups of clinically important lymph nodes and their drainage region.

Recommended reading: Basic Histology - Janquera, Gray's Anatomy

Topographic anatomy (including surface anatomy) : General body features including secondary sex characteristics; topographic anatomy of different parts and organs of a child including the variation in a newborn (in practical examination relevant topics will be assessed by using bones, viscera, model and figures).

Recommended reading: Gray's Anatomy

Histology: Light, dissecting and electron microscopic features and their functional implications of following structures - liver, kidney, GI tract, pancreas, respiratory passages and alveoli, endocrine glands, heart, blood vessel, muscles, lymphoid organs (the learning objective of this chapter will be to learn the general histology covering the functional principle of the 4 basic tissues. In practical examination these parts will be assessed using projected photomicrograph and printed photographs).

Recommended reading: Basic Histology - Janquera; Basic Histology - Ross.

Clinical Neuroanatomy: Central and peripheral nervous system with special importance on the development and related anomalies; anatomy of the common injury including birth injuries, clinical neuroanatomy in relation to joint movement.

Recommended reading: Snell and book of NMS series.

Sectional anatomy and anatomy of imaging: Basic of sectional anatomy of different parts/organs relevant to paediatrcs helping to identify the normal appearance leading to identification or organ or its parts and the abnormal situations (Radiograph, USG, CT and MRI materials are to be use for relevant anatomy of imaging)

Basic anatomy of relevant physiological processes and related disorders: respiration, sucking, swallowing, vomiting, nasal regurgitation, peristalsis, defecation, micturition, walking, vision, hearing, equilibration, olfaction, taste, reflexes.

Recommended reading: Moore Clinical Anatomy, Ganong's Physiology

Anatomy relevant to clinical procedures and related problems: lumbar puncture, trachiostomy, laryngoscopy, otoscopy, venipuncture, liver biopsy, renal biopsy, peritoniocentesis and thoracocentesis.
Recommended reading: Moore Clinical Anatomy, Hutchison's Clinical Method

Behavior science, medical ethics and communication skill: There has to be some brief introduction of the topic initially and elaborated in the second part. Later on most of it shall be covered in first part. Communication skill to cover both patient-doctor, doctor-attendant, doctor-doctor and doctor to other professionals in the field.

Medical statistics : Definition of different terms commonly used in the practice, basic concepts, fundamentals of biostatistics and epidemiology, sampling, data analysis, frequency tables, central tendency and measure of dispersion, distribution, probability, test of probability, significance, confidence interval, data presentation etc.

Recommended reading: Essential of Medical Statistics By Betty Kirkwood, Principles of Medical Statistics by Bradford Hill

Format of examination:

It will comprise of

- Written
- Practical

Written examination: The questions in general anatomy should cover the parts that are relevant to paediatrics. Distribution of Different parts of anatomy to be represented in the written question are as follows:

Parts	No. of Q.
1. Cell biology	3-4
2. Developmental (general and special) anatomy	6-8
3. General anatomy and Topographic anatomy	6-8
4. Histology	3-5
5. Clinical neuro-anatomy	5
6. Sectional anatomy and anatomy of imaging	4-6
7. Anatomical basis of procedure and related problems	4-6
8. Anatomy of physiologic processes and disorders	4-6
9. Behavioral science, medical ethics, code of conduct	3
10. Medical Statistics	3

Paper-II
Physiology, Clinical Biochemistry and Clinical Pharmacology

Points to remember:

- ❖ Following are the course content for FCPS part-I in Paediatrics in paper-II. The contents should be approached which is relevant to Paediatrics discipline and not for true basic science discipline.

- ❖ The study should be directed in understanding of the basic physiological processes in relation to specific clinical entity so that one understand the pathophysiology of the disease process clearly in later part

A. Physiology

- Cell/ Membrane Physiology including molecular biology
- Intercellular communication and receptor diseases:
- Recommended reading: Ganong / Guyton

Pathophysiology of body fluid, electrolytes and their derangement:

- Physiology of important solutes (sodium, potassium, chloride, phosphate, calcium) and impact of their derangement.
- Body fluid compartments and its relevance in clinical practice.
- Buffering system including acidosis and alkalosis and their consequences.
- Consequences of fluid, electrolytes and acid/base disturbances on different system.
- Recommended reading: Ganong/Guyton, Nelson/Forfar

Physiological processes and there clinical application:

Respiratory system- respiration including its regulation, surfactant, respiratory membrane, types of respiration, production of breath sound and their variants, lung function test and its interpretation in different situation, cough, acid base balance and respiratory system, principles of oxygen therapy, pathophysiology of hypoxia and respiratory failure.

• **Gastrointestinal System:** physiology and disorder of gut mucosal protection of stomach, digestion and absorption of different food components, liver function, bile production and metabolism, jaundice, liver function test and their interpretation in different situation, pancreatic function, gut hormones, mechanism of abdominal pain.

- Cardiovascular system- properties of cardiac muscle, cardiac cycle, conduction pathways, ECG, blood pressure, pulse, cardiac arrhythmia, hemodynamics and correlation with Doppler/ECHO, peripheral circulation, Circulation of brain, kidney, liver, lungs and GI tract, pathophysiology of heart failure, oedema, shock and dyspnea.
- Hemopoietic system- Constituents of blood and there importance, hemoglobin formation and metabolism, hemopoiesis, factors controlling hemopoiesis, iron kinetics, pathophysiology of anemia, hemolytic disorder, bleeding disorder and coagulation disorders.
- Nutrition - micro and macronutrients- definition, function, deficiency, physiological derangement in malnutrition of different nutrient, measuring nutrition, dietetics
- Renal System, glomerular and tubular functions, water and electrolyte balance, formation of urine, micturition and its control mechanism.
- Musculoskeletal system - muscle contraction, physiology of bone formation, factor influencing it and its disorder.
- Endocrinology- physiological role, control of secretion, metabolism, feature of hypo and hyper function, test for functioning status of thyroid gland, parathyroid gland, pancreas and gonads. Also includes physiology of pregnancy, parturition, breast milk and breast feeding, diabetes mellitus and puberty.

Recommended reading: Ganong/Guyton, Nelson/Forfar

Physiology of imaging:
Principles of X-ray, CT, MRI, PET, USG, ECHO, Doppler, Isotope and other scanning of thyroid, kidney, liver, brain, bone, etc.

Recommended reading: Relevant section in the introductory chapters in different systems in Nelson / Forfar

Neurophysiology:
Physiology of speech, disorders of speech- mechanism, tests.
Physiology of smell and tests of smell function

Physiology of vision- visual pathway, light and accommodation reflex, visual field, color vision, and tests for above functions and their interpretation.

Hearing and equilibrium tests and interpretation of their functions.
Physiology of taste and the tests for taste.
Motor neuron- upper and lower, physiology of deep tendon reflexes, superficial reflexes, primitive reflexes.

Superficial and deep pain, visceral sensations, referred pain, tactile localization, two point discrimination, stereognosis.

Functions of basal ganglia and cerebellum - posture, balance and muscle tone, physiologic principle of coordination, ataxia.
Hypothalamus - secretion, functions and their control, physiology of hunger, thirst, body temperature. Physiologic basis of tests to measure the different functions.

CSF-production, control, function, circulation and physiological consequences of abnormalities. Physiological basis of EEG.

Recommended reading: *Ganong/ Guyion, Nelson/ Forfar*

B. Clinical Biochemistry
Physiologic and clinical significance of important steps and regulation of glycolysis, citric acid cycle, gluconeogenesis, glycogenesis, glycogenolysis and HMP shunt.

Physiologic and clinical significance of important steps and regulation of lipogenesis, lipolysis, ketogenesis, cholesterol biosynthesis. Physiologic and clinical significance of important steps and metabolism of phenylalanine, tyrosine, methionine, tryptophan, Folic acid and Vit B-12

Purine metabolism and formation of uric acid
Glycoproteins- proteoglycan and mucopolysaccharidoses
Metabolism -Basal metabolic rate and factor influencing it
Collagen - types and principles of synthesis

Principles of commonly used biochemical tests and factors (both physiological and procedural) that may affect the test.
Recommended reading: Harpers textbook of Biochemistry and relevant section in the introductory chapters on different system in Nelson/Forfar

C. Clinical Pharmacology:

Basic Pharmacology:

Drug absorption, distribution, elimination, mechanism of drug action, half life, peak and trough level, dose response relation, Principle of therapeutics.

Pharmacology of some commonly used drugs:

Pharmacology effects, classifications, mechanism of actions, side effects and drug interaction of the following drugs-analgesics/antipyretic, antimicrobials and antihelminths, anticholinergic, sympathomimmetics, drugs used in peptic ulcer, diuretics, antihistamines, bronchodilators, laxatives, vitamins and minerals, hormones, hypoglycaemic agents, anticonvulsant

Recommended reading: Basic and Clinical Pharmacology by BG Katzung

Format of examination:

It will comprise of

- Written
- Practical

The written part will be assessed with MCQ. Questions shall be mostly clinical use of basic science knowledge rather than true, physiological processes or biochemical reaction etc. Distribution of different parts to be represented in the written questions are:

Parts	**No of questions**
1. Cell physiology and molecular biology	4-5
2. Pathophysiology of body fluid, electrolytes and there derangement	3-5
3. Physiology of growth and development	4-5
4. Endocrinology	4-6
5. Physiological processes & its clinical application	10-15
6. Physiology of imaging	2-3
7. Neurophysiology	6-7
8. Clinical biochemistry	5-6
9. Clinical pharmacology	6-8

Paper-III: Pathology

(Microbiology, Immunology, Virology, Genetics, Molecular biology and I Histopathology)

Points to remember:

- Following are the course content for Paediatrics FCPS part-1 in paper-III. The contents should be approached which is relevant to Paediatrics discipline and not for true basic science discipline or other clinical subjects.

A. Pathology

General pathology: The following conception are to be correlated with different clinical entity- cellular injury and death, inflammation and repair, granulomatous disorder, neoplasm, thrombosis, embolism, oedema.
Principles of commonly used cytological and histopathological investigations, factors affecting the quality of specimen and reporting, scope and limitations of such investigations.

Immunology: basic principles, concept of host-agent-environment, mechanisms of immunity and auto-immunity, immune mediated diseases including graft versus host and tumor immunity, pathological basis of different investigative tools available based on immunological principles.

Genetics and molecular biology : basic concept, molecular basis of diseases, genetic basis of diseases, investigative tools available for these, their uses and limitations, pedegree analysis, genetic counseling principles.

Special pathology: A student will be expected to know the following of the individual pathological situation enumerated below

- Site of lesion including the microstructure
- General pathological description of the type of lesion
- Functional derangement following the lesion
- Micro-structural and chemical changes of the lesion
- Pathological explanation of presenting feature

Respiratory system: Pneumonia, bronchiolitis, tonsillitis, bronchial asthma, lung abscess, bronchiectasis, pleural effusion.

Haematology and Oncology: Anaemia (nutritional, hemolytic, hemorrhagic and others), bleeding disorder (ITP, hemophilia.), Von-Willebrands disease), Hodgkins and non-Hodgkins Lymphoma, leukaemia, Wilms tumor, retinoblastoma, neuroblastoma.
Cardiovascular system: Rheumatic heart diseases, congenital heart diseases, infective endocarditis.
Central nervous system: Meningitis, encephalitis, GB syndrome and hydrocephalous.

Gastrointestinal system: Hirschsprung diseases, appendicitis, hepatitis - acute & chronic, cirrhosis of liver, portal hypertension.

Genito-urinary system: Urinary tract infection, acute glomerulonephritis, nephrotic syndrome. acute renal failure, chronic renal failure.

Collagen disorder: Acute rheumatic fever, JCA.

Nutritional disorder: PEM, macro and micro nutrient deficiency syndromes, iodine deficiency disorder, rickets, scurvy, xerophthalmia.
Neonatology: Low birth weight, respiratory distress syndrome, TORCH infection, neonatal jaundice, birth asphyxia, hemorrhagic disease of newborn.

Inborn error of metabolism: Phenylketonuria, Galactossaemia
Endocrinology: Thyroid - hypo and hyper function, pituitary, anterior and posterior - hypo and hyper function. Pancreas - diabetes, adrenal gland - adrenal hyperplasia, pheochrornocytoma.

Recommended books: Relevant section in Robbin's Pathologic Basis of Diseases, Jawetz, Menich and Adelberg's Medical Microbiology and Nelsons/Forfar Textbook of Paediatrics.

B. Bacteriology

- **Basic bacteriology:** Classification of microbial agents, normal microbial flora in human body, infection, sepsis, septicemia, bacteraemia, spread of infection, control of infection.
- Bacterial culture, principles of bacterial growth, culture media, principles of serological techniques used in bacteriology, scope and limitation of bacteriological studies, collection and preservation of samples.

- Pathogenesis and laboratory diagnosis of-
  Typical/atypical mycobacteria, diphtheria, pertussis, tetanus, pneumonia, Enteric fever, meningitis, tetanus, gangrene, gonorrhoea, dengue, syphilis including congenital infection staphylococcal and streptococcal infection, secretary and invasive enterocolitis.
- Infection and immunosuppression

Recommended books: Relevant section Nelsons/Forfar, Textbook of Paediatrics and Jawetz, Melnichand Adelberg's Medical Microbiology

C. Virology

- Basic virology viral structure, classification, replication, mode of transmission, pathogenesis and diagnosis of viral infection
- Pathogenesis and diagnosis of diseases cause by-Adenoviruses, Herpesvirus, Hepatitis virus, Rotavirus, Rabies virus, Slow virus, Reovirus, Arbovirus, HIV, Measles and rubella, mumps, poliomyelitis
- Viral infection in congenital or acquired immune- compromised child

Recommended book: Relevant section in Nelsons/ Forfar Textbook of Paediatrics, Medical Microbiology.

D. Parasitology

- **General parasitology:** classification of parasites, transmission, Infestation, body response to infestation, pathological basis of different laboratory diagnosis.
- General features of rhizopodes, flagellates, nematodes, cestodes and trematodes.
- Life cycle of parasites, pathogenesis and diagnosis of diseases caused by malaria, leishmaniasis, toxoplasmosis, pneumocystosis, ascariasis, ankylostoimasis, strongyloidiasis, enterobiasis, filariasis, taeniasis, echinococcosis, sarcoptes scabei.

Recommended books: Relevant section in Parasitology by Chatterjee and Nelsons/Forfar Textbook of Paediatrics.

E. Mycology

- **General mycology:** properties of fungus, classification of fungi, laboratory diagnosis of fungal diseases.
- Pathogenesis, clinical consequences and laboratory diagnosis of superficial and cutaneous mycosis, deep mycosis

Recommended books: Relevant section in Nelsons/Forfar Textbook of Paediatrics

Format of Examination in pathology:
It will comprise of

- Written
- Practical

The written part will be assessed through MCQ assessing the clinical use of basic science knowledge rather than true pathological process.
Distribution of different parts in the written questions.

Parts	**No. of question**
1. General Pathology	8-10
2. Immunology	4-6
3. Systemic Pathology	12-15
4. Genetics and Molecular Biology	3-5
5. Bacteriology	6-8
6. Virology	3-5
7. Parasitology	2-3
8. Mycology	2-3
9. Pathological Procedures, sterilization/disinfection	3

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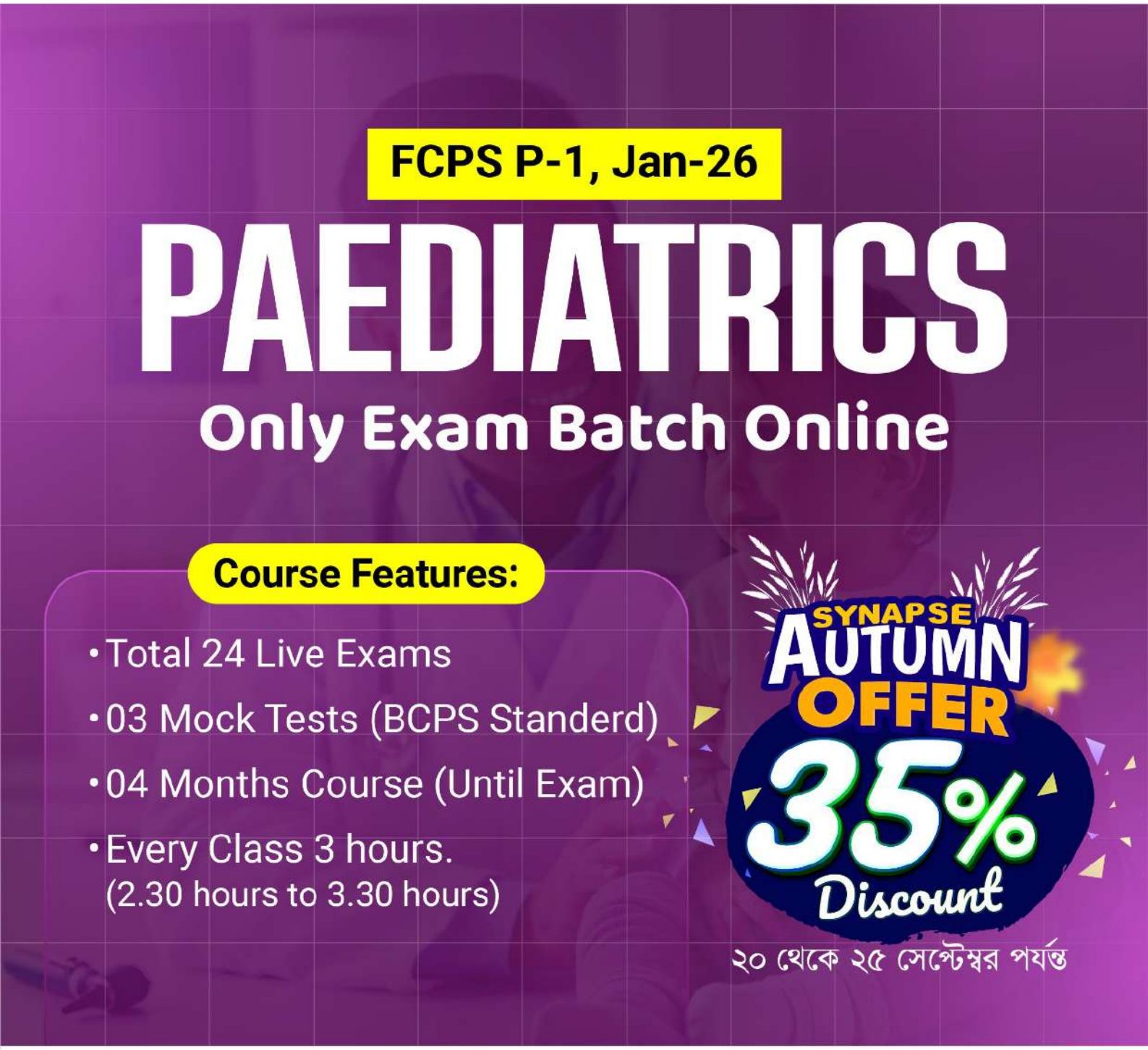

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  (2.30 hours to 3.30 hours)

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