

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवाआयोग
प्राज्ञिक सेवा, बालचिकित्सा समूह, **Cardiology** उपसमूह, सहायकप्राध्यापक पद, (नौ ख) (१ख) तहको खुला र
आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

Paper II: Technical Subject
Section (A) General Pediatric - 45 Marks

1. Growth development and behavior

- 1.1 Physical and psychosocial growth and development of normal child
- 1.2 Disorders of growth
- 1.3 Delay and deviations of development
- 1.4 Assessment of growth and development
- 1.5 Disorders of psychological development
- 1.6 Common behavioral problems of preschool children
- 1.7 Common speech disorders
- 1.8 Common Paediatric Behavioural and Psychiatric disorders

2. Nutrition, Fluid and Electrolytes

- 2.1 Normal nutrition in infancy and childhood
- 2.2 Common nutritional disorders in childhood
- 2.3 Nutrition supplementation programs
- 2.4 Acid base balance
- 2.5 Maintenance and replacement therapy of fluid and electrolytes

3. Preventive pediatrics

- 3.1 Immunizations
- 3.2 Prevention and management of common disorders of childhood
- 3.3 Prevention and management of poisonings and accidents

4. Social pediatrics

- 4.1 School health services
- 4.2 National health programmes related to maternal and child health
- 4.3 Community health services for the maternal and childhood
- 4.4 Organizing health care delivery and referral systems for children

5. Genetics

- 5.1 Genetic and chromosomal disorders
- 5.2 Inborn errors of metabolism
- 5.3 Genetic counseling including antenatal diagnosis
- 5.4 Gene therapy

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6. Neonatology

- 6.1 Management of normal, high risk and sick neonates
- 6.2 Monitoring and ventilatory support of the sick neonates
- 6.3 Foetal disorders
- 6.4 Perinatology
- 6.5 Preventive neonatology

7. Adolescent Medicine

- 7.1 Adolescent development
- 7.2 Adolescent health problems

8. Infectious diseases

- 8.1 Diagnosis and management of common infectious diseases (bacterial, viral, parasitic, fungal) in the pediatric age group and their management principles

9. Immunity, allergy and rheumatic disorders of Paediatric age group

10. System based pediatrics

- 10.1 Diagnosis and management of common diseases/ disorders affecting Gastro intestinal, hepatobiliary, respiratory, endocrine, blood and lymphoreticular, genitourinary, nervous and musculoskeletal systems

11. Eye, ear, nose and throat

- 11.1 Diagnosis and management of common disorders of eye, ear, nose and throat in the pediatric age group

12. Paediatric Dermatology

- 12.1 Common dermatological problems in Children
- 12.2 Sexually transmitted diseases, AIDS

13. Paediatric Surgery

- 13.1 Diagnosis and supportive management of common surgical disorders of neonates, infants and children and appropriate referral

14. Pediatric Emergencies

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14.1 Diagnosis and management of common pediatric emergencies such as coma, convulsions, shock, acute severe asthma, cyanotic spells, poisonings, accidents etc. Pediatric advance life support skills, cardiovascular support and stabilization

15. Neoplastic disorders and tumors

15.1 **Epidemiology, principles of diagnosis and treatment of common Paediatric neoplastic disorders (leukaemias, lymphomas, neuroblastoma, soft tissue sarcoma, retinoblastoma) and benign tumors**

Section (B) Pediatric Cardiology - 55 Marks

1. Developmental Biology of the Cardiovascular System

- Anatomy of the heart
- Cardiac Development
- Embryology of the heart
- The Fetal to Neonatal Circulatory Transition

2. Evaluation of the Cardiovascular System and the Child with a Heart Murmur

- History and Physical Examination in Cardiac Evaluation
- Laboratory Cardiac Evaluation (ECG, Radiology, Echocardiography, cardiac catheterization, angiography, Holter monitoring, stress testing, cardiac output measurement)

3. Congenital Heart Disease

- Epidemiology and Genetic Basis of Congenital Heart Disease
- Evaluation and Screening of the Infant or Child With Congenital Heart Disease
- Acyanotic Congenital Heart Disease Left-to-Right Shunt Lesions
- Acyanotic Congenital Heart Disease Obstructive Lesions
- Acyanotic Congenital Heart Disease Regurgitant Lesions
- Cyanotic Congenital Heart Disease Evaluation of the Critically Ill Neonate With Cyanosis and Respiratory Distress
- Cyanotic Congenital Heart Disease Lesions
- Associated With Decreased Pulmonary Blood Flow
- Cyanotic Congenital Heart Disease Lesions Associated With Increased Pulmonary Blood Flow
- Other Congenital Heart and Vascular Malformations
- Pulmonary Hypertension
- General Principles of Treatment of Congenital Heart Disease

4. Cardiac Arrhythmias

- Disturbances of Rate and Rhythm of the Heart
- Sudden cardiac Death

5. Acquired Heart Disease

- Infective Endocarditis

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- Rheumatic Heart Disease
- Diseases of the coronary artery

6. Diseases of the Myocardium and Pericardium

- Diseases of the Myocardium
- Diseases of the Pericardium
- Inflammatory disease of the heart
- Tumors of the Heart

7. Cardiac Therapeutics

- Heart Failure
- Pediatric Heart and Heart-Lung Transplantation
- Paediatric intensive cardiac care
- Postoperative paediatric cardiac care

8. Diseases of the Peripheral VascularSystem

- Diseases of the Blood Vessels (Aneurysms and Fistulas)
- Systemic Hypertension

9. Miscellaneous

- Foetal heart disease- detection and management
- Cardiac emergencies
- Preventive cardiology

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