



RAN-2406120701010501

Doctor of Medicine - Examination August - 2026
Pediatrics (Paper - I)
Time: 3 Hours]
[Total Marks: 100
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Sketch neat and labelled diagram wherever necessary.
- (3) Figures to the right indicate full marks of the question.
- (4) All questions are compulsory.

Seat No.:

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Student's Signature

- Q. 1. Endogenous synthesis of vitamin D and discuss clinical features and complications of vitamin D deficiency. (10)
- Q. 2. Renal Mechanisms for Acid base balance and discuss aetiology and Pathophysiology of Metabolic acidosis. (10)
- Q. 3. **Write short notes. (5 marks each)**
 - (a) Thiamine deficiency
 - (b) Application of recombinant DNA technique
- Q. 4. **Write short notes. (5 marks each)**
 - (a) Emergency triage assessment and treatment ETAT
 - (b) Air ambulance
- Q. 5. **Write short notes. (5 marks each)**
 - (a) Pediatric Pharmacogenomics
 - (b) Brain Death- Death by Neurologic Criteria
- Q. 6. **Write short notes. (5 marks each)**
 - (a) New born and infant death review
 - (b) lab diagnosis of acute leukemia
- Q. 7. **Write short notes. (5 marks each)**
 - (a) Hypernatremia in children
 - (b) Pathophysiology of malnutrition
- Q. 8. **Write short notes. (5 marks each)**
 - (a) Diagnostic role of Urine routine microscopy
 - (b) Antidote-atropine

Q. 9. Write short notes. (5 marks each)

- (a) UDID in pediatrics
- (b) Doctor patient relationship

Q. 10. Write short notes. (5 marks each)

- (a) FBNC program
 - (b) Write type of research studies and brief about cohort study
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RAN-2406120701010502
Doctor of Medicine - Examination August - 2026
Pediatrics (Paper - II)
Time: 3 Hours]
[Total Marks: 100

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book (2) Sketch neat and labelled diagram wherever necessary. (3) Figures to the right indicate full marks of the question. (4) All questions are compulsory.	Seat No.: Student's Signature
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- Q. 1.** Discuss etiology and write management of severe ARDS **(10)**
- Q. 2.** Describe clinical approach, diagnosis and management of pulmonary TB **(10)**
- Q. 3. Write short notes. (5 marks each)**
- (a) Acute tonsillitis
- (b) Emotional and Linguistic Development of 12 to 18 months
- Q. 4. Write short notes. (5 marks each)**
- (a) Breath- holding spells
- (b) Dyslexia
- Q. 5. Write short notes. (5 marks each)**
- (a) Neurodevelopmental and Neurobehavioral characteristics of Down syndrome
- (b) Genetic counselling for sickle cell disease
- Q. 6. Write short notes. (5 marks each)**
- (a) Fragile X syndrome
- (b) Micronutrient deficiency in children
- Q. 7. Write short notes. (5 marks each)**
- (a) Electrical burn
- (b) Diagnostic Approach for Patients with thrombocytopenia
- Q. 8. Write short notes. (5 marks each)**
- (a) Kawasaki disease
- (b) Diaper dermatitis

Q. 9. Write short notes. (5 marks each)

- (a) CTEV
- (b) Retinitis pigmentosa

Q. 10. Write short notes. (5 marks each)

- (a) Discuss discharge criteria of SAM
 - (b) Management of Osteomyelitis
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Doctor of Medicine Examination August - 2026
Pediatrics (Paper - III)
Time: 3 Hours]
[Total Marks: 100
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
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Seat No.:

Student's Signature

- Q. 1.** Diagnostic approach to patient with fever of unknown origin
- Q. 2.** Evaluation of child with proteinuria. Management of Nephrotic Syndrome
- Q. 3. Write short notes. (5 marks each)**
 - (a) Aphthous Ulcers
 - (b) Recurrent pneumonia
- Q. 4. Write short notes. (5 marks each)**
 - (a) Antimicrobial stewardship in PICU
 - (b) Management of Guillain-Barre Syndrome
- Q. 5. Write short notes. (5 marks each)**
 - (a) Empyema complication and treatment
 - (b) Clinical manifestation of Tetralogy of Fallot
- Q. 6. Write short notes. (5 marks each)**
 - (a) Diagnosis and treatment myocarditis
 - (b) Fanconi anemia
- Q. 7. Write short notes. (5 marks each)**
 - (a) Neurogenic bladder
 - (b) Management of diabetic ketoacidosis.
- Q. 8. Write short notes. (5 marks each)**
 - (a) Approach to epilepsy surgery
 - (b) Management of Migraine Headaches in Children
- Q. 9. Write short notes. (5 marks each)**
 - (a) Duchenne muscular dystrophy
 - (b) Discuss non-hodgkins lymphoma
- Q. 10. Write short notes. (5 marks each)**
 - (a) Neurofibromatosis
 - (b) Approach in congenital Adrenal Hyperplasia

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Pediatrics (Paper - IV)

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[Total Marks: 100

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- Q. 1.** Discuss the pathophysiology, clinical features, diagnostic evaluation and recent updates in the management of Neonatal Encephalopathy / Hypoxic-Ischemic Encephalopathy (HIE). (10)
- Q. 2.** Discuss the clinical utility, current applications, and future prospects of Next-Generation Sequencing (NGS) in pediatric critical care medicine. (10)
- Q. 3. Write short notes on (5 marks each)**
- Antenatal counseling and optimization in extreme prematurity
 - Kangaroo Mother Care (KMC) for low birth weight infants: Recent WHO guidelines
- Q. 4. Write short notes on (5 marks each)**
- High-Frequency Oscillatory Ventilation (HFOV) in neonates: Indications and lung recruitment strategies
 - Needle-free injection systems and microneedle patches in pediatric immunization.
- Q. 5. Write short notes on (5 marks each)**
- Target oxygen saturation monitoring and targeting in preterm neonates
 - Role of wearable biosensors and remote monitoring systems in the Pediatric Intensive Care Unit (PICU)
- Q. 6. Write short notes on (5 marks each)**
- Functional Echocardiography (fECHO) in neonatal hemodynamic monitoring
 - Whole-body cooling versus selective head cooling in neonatal HIE
- Q. 7. Write short notes on (5 marks each)**
- Clinical applications of inhaled Nitric Oxide (iNO) therapy in pediatrics
 - Antisense oligonucleotides and gene replacement therapies in Spinal Muscular Atrophy (SMA)

- Q. 8. Write short notes on (5 marks each)**
- Standards of processing and nutritional management in Donor Human Milk Banking
 - Applications of CRISPR-Cas9 technology in managing pediatric hemoglobinopathies
- Q. 9. Write short notes on (5 marks each)**
- Non-invasive monitoring strategies and biomarker evaluation for Necrotizing Enterocolitis (NEC)
 - Expanded Newborn Screening (ENBS): Challenges and implementation strategies in India
- Q. 10. Write short notes on (5 marks each)**
- High-Flow Nasal Cannula (HFNC) therapy in pediatric acute respiratory distress
 - Liquid biopsy and circulating tumor DNA (ctDNA) applications in pediatric oncology diagnostics
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