

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR (Broad Speciality) PAEDIATRICS MEDICAL EDUCATION DEPARTMENT**

### **1. Growth and Development:**

- 1) Principles of growth and development
- 2) Normal growth and development in childhood and adolescence
- 3) Assessment of Gestation Age
- 4) Growth Patterns
- 5) Growth Charts
- 6) Mamta Card
- 7) Asymmetric Growth
- 8) Skeletal Dysplasia
- 9) Developmental Delay and its assessment
- 10) Assessment of Age
- 11) Sexual maturation and its disturbance
- 12) Adolescent problems

### **2. Neonatology:**

- 1) Perinatal care
- 2) Care in the labour room
- 3) Neonatal resuscitation
- 4) Prematurity
- 5) Normal Newborn
- 6) High Risk Newborn
- 7) Care in Hospital and follow up after discharge
- 8) Newborn Screening
- 9) Persistent Pulmonary Hypertension
- 10) Oxygen Therapy, HFNC and CPAP
- 11) Neonatal Ventilation
- 12) Common transient phenomena
- 13) Low Birth weight and SGA
- 14) Newborn feeding and Parenteral Nutrition
- 15) Human Milk Banking
- 16) Respiratory distress
- 17) Apnea
- 18) Antenatal Risk Factors and their impact on Foetal Outcome
- 19) Antenatal diagnosis and Foetal Therapy

- 20) Infections
- 21) Neonatal Jaundice
- 22) Neurologic disorders
- 23) Thermoregulation and its disorders including Kangaroo Mother Care
- 24) Anemia and bleeding disorders
- 25) Gastrointestinal disorders
- 26) Congenital Malformations
- 27) Inborn Errors of Metabolism and Newborn screening
- 28) Neonatal Seizures
- 29) Developmentally Supportive Care
- 30) Fluid and Electrolyte imbalance in newborn
- 31) Acute life-threatening events and SIDS

### **3. Nutrition:**

- 1) Maternal Health and its impact on the health of child
- 2) Infant and Young Child Nutrition
- 3) MAA Program
- 4) Complementary Feeding
- 5) Protein energy malnutrition and severe acute malnutrition
- 6) Adolescent nutrition
- 7) Nutritional management of systemic illness (celiac disease, hepatobiliary disorders, nephritic syndrome)
- 8) Nutrition for the low birth weight
- 9) Early initiation and exclusive breastfeeding
- 10) Vitamin Deficiency disorders
- 11) Micronutrient Deficiency
- 12) Obesity and metabolic syndromes
- 13) Parenteral and enteral nutrition in neonates and children
- 14) Hyperlipidemia in children

### **4. Cardiovascular:**

- 1) Foetal Circulation
- 2) Antenatal development of CVS
- 3) Congenital heart diseases (cyanotic and acyanotic)
- 4) Infective endocarditis
- 5) Disease of myocardium (cardiomyopathy, myocarditis)
- 6) Rheumatic Fever and rheumatic heart disease
- 7) Arrhythmia
- 8) Diseases of pericardium
- 9) Systemic hypertension
- 10) Heart failure and its management

- 11) Basics of ECG
- 12) Echocardiography

## **5. Respiratory:**

- 1) Congenital and acquired disorders of nose
- 2) Tonsils and adenoids
- 3) Congenital anomalies of upper and lower respiratory tract
- 4) Foreign body in larynx trachea & bronchus
- 5) Neoplasm of larynx and trachea
- 6) Bronchitis
- 7) Aspiration pneumonia
- 8) Acute pneumonia
- 9) Suppurative lung disease
- 10) Atelectasis
- 11) Emphysema and hyper-inflation
- 12) Pulmonary edema
- 13) Infections of upper respiratory tract
- 14) Obstructive sleep apnea
- 15) Acute inflammatory upper airway obstruction
- 16) Subglottic stenosis (acute and chronic)
- 17) Bronchiolitis
- 18) GER
- 19) Recurrent and interstitial pneumonia
- 20) Lung cysts
- 21) Bronchial asthma
- 22) Bronchiectasis
- 23) Pleural Effusion
- 24) Mediastinal mass
- 25) Pulmonary leaks
- 26) Cystic Fibrosis
- 27) Pulmonary Function Test

## **6. Gastrointestinal and Liver Disease:**

- 1) Disease of Oral Cavity
- 2) Disorders of deglutition and esophagus
- 3) H. pylori infection and Peptic ulcer disease
- 4) Malabsorption syndrome and celiac disease
- 5) Irritable Bowel Syndrome
- 6) Hepatitis
- 7) Chronic liver disease

- 8) Cirrhosis and portal hypertension
- 9) Peptic ulcer disease
- 10) Foreign body of oesophagus and stomach
- 11) Intestinal obstruction
- 12) Acute, Persistent and chronic diarrhea
- 13) Inflammatory bowel disease
- 14) Hepatic failure
- 15) Wilson's disease
- 16) Metabolic diseases of liver
- 17) Liver transplant
- 18) Protein losing enteropathy
- 19) Infantile cholestasis
- 20) Liver abscess
- 21) Portal Hypertension

## **7. Nephrologic & Urologic Disorders:**

- 1) Acute and chronic glomerulonephritis
- 2) Hemolytic uremic syndrome
- 3) VUR and renal scarring
- 4) Renal tubular disorders
- 5) Congenital and hereditary renal disorders
- 6) Posterior urethral valves
- 7) Nephrotic Syndrome
- 8) Urinary tract infection
- 9) Undescended Testes
- 10) Renal involvement in systemic diseases
- 11) Renal and bladder stones
- 12) Hydronephrosis, Voiding Dysfunction
- 13) Wilm's Tumor
- 14) Renal transplant
- 15) Acute and chronic renal failure
- 16) Peritoneal dialysis, Hemodialysis and Continuous renal replacement therapy

## **8. Neurologic Disorders:**

- 1) Seizure and non-seizure paroxysmal events
- 2) Meningitis
- 3) Brain abscess
- 4) Acute encephalitis and febrile encephalopathies
- 5) Neurocysticercosis and other neuroinfestation

- 6) Pediatric Stroke
- 7) Neurometabolic and neurodegenerative disorders
- 8) Neuromuscular disorders
- 9) Learning disabilities
- 10) Acute flaccid paralysis and AFP surveillance
- 11) Movement disorders of childhood
- 12) Malformations
- 13) Epilepsy and epileptic syndromes of childhood
- 14) Coma
- 15) Guillain Barre Syndrome
- 16) Cerebral palsy
- 17) Mental retardation
- 18) Ataxia
- 19) CNS tumors
- 20) Traumatic brain and spinal cord injury
- 21) Acquired acute and chronic demyelinating disorders of Nervous system
- 22) Hydrocephalus
- 23) Neuroimaging
- 24) Neuro-electrophysiology (EEG, EMG, Nerve conduction study, Evoked potentials)

## **9. Hematology & Oncology:**

- 1) Deficiency anemias
- 2) Aplastic anemia
- 3) Thrombocytopenia
- 4) Blood Component Therapy
- 5) Bone marrow transplant /stem cell transplant
- 6) Myelodysplastic syndrome
- 7) Hodgkin and Non-Hodgkin's lymphoma
- 8) Hypercoagulable states
- 9) Hemolytic anemias
- 10) Pancytopenia
- 11) Transfusion related infections
- 12) Acute and chronic leukemia
- 13) Hodgkin disease
- 14) Neuroblastoma
- 15) Febrile neutropenia
- 16) Disorders of Hemostasis
- 17) Flow Cytometry
- 18) Solid tumors of childhood

## **10. Endocrinology:**

- 1) Hypopituitarism/hyperpituitarism
- 2) Pubertal disorders
- 3) Adrenal insufficiency
- 4) Adrenogenital syndromes
- 5) Hypoglycemia
- 6) Gonadal dysfunction and intersexuality
- 7) Diabetes insipidus
- 8) Hypo-and hyper-thyroidism
- 9) Cushing's Syndrome
- 10) Short stature
- 11) Obesity
- 12) Diabetes Mellitus

## **11. Infections:**

- 1) Bacterial Infections
- 2) Fungal Infections
- 3) Rickettsial Infections
- 4) Protozoal and parasitic Infections
- 5) HIV
- 6) Control of epidemics and infection prevention
- 7) Viral Infections
- 8) Mycoplasma
- 9) Tuberculosis
- 10) Nosocomial infection
- 11) Childhood immunization
- 12) Biomedical waste

## **12. Emergency & Critical Care:**

- 1) Emergency care of shock
- 2) Respiratory failure
- 3) Status epilepticus
- 4) Fluid and electrolyte disturbances and its therapy
- 5) Poisoning
- 6) Scorpion and snake bites
- 7) Cardio-respiratory arrest
- 8) Acute renal failure
- 9) Acute severe asthma
- 10) Acid base disturbances

- 11) Accidents
- 12) Ventilation (Invasive and Non-invasive)

### **13. Immunology & Rheumatology:**

- 1) Arthritis (acute and chronic)
- 2) T and B cell disorders
- 3) Connective tissue disorders
- 4) Immuno-deficiency syndromes
- 5) Pediatric Autoimmune disorders

### **14. ENT:**

- 1) Acute and chronic otitis media
- 2) Post-diphtheritic palatal palsy
- 3) Acute/chronic tonsillitis/adenoids
- 4) Foreign body
- 5) Conductive/sensorineural hearing loss
- 6) Allergic rhinitis/sinusitis
- 7) Cochlear implant
- 8) Assessment of Hearing

### **15. Skin Diseases:**

- 1) Exanthematous illnesses
- 2) Pigment disorders
- 3) Pyogenic infections
- 4) Steven-johnson syndrome
- 5) Seborrheic dermatitis
- 6) Urticaria
- 7) Ichthyosis
- 8) Vascular lesions
- 9) Vesicobullous disorders
- 10) Fungal and parasitic
- 11) Eczema
- 12) Drug rash
- 13) Alopecia

### **16. Eye Problems:**

- 1) Refraction and accommodation
- 2) Night blindness

- 3) Strabismus
- 4) Retinopathy of prematurity
- 5) Optic atrophy
- 6) Partial/total loss of vision cataract
- 7) Chorioretinitis
- 8) Conjunctival and corneal disorders
- 9) Retinoblastoma
- 10) Papilledema
- 11) Cataract
- 12) Amaurosis

### **17. Behavioral & Developmental Disorders:**

- 1) Rumination
- 2) Enuresis
- 3) Sleep disorders
- 4) Breath holding spells
- 5) Mood disorders
- 6) Attention deficit hyperactivity disorders
- 7) Pica
- 8) Encopresis
- 9) Habit disorders
- 10) Anxiety disorders
- 11) Temper tantrums
- 12) Pervasive Development Disorders and Autistic Development Disorders

### **18. Social Pediatrics:**

- 1) National health programs related to child health
- 2) Child labor
- 3) Disability and rehabilitation
- 4) National policy of child health and population
- 5) Child abuse and neglect
- 6) Adoption
- 7) Rights of the child
- 8) Juvenile delinquency
- 9) IMS Act
- 10) Baby Friendly Hospital Initiative
- 11) Breast Feeding Policy
- 12) ICDS



## **19. Genetics:**

- 1) Principles of inheritance
- 2) Chromosomal disorders
- 3) Multifactorial/polygenic disorders
- 4) Prenatal diagnosis
- 5) Pedigree drawing
- 6) Single gene disorders
- 7) Genetic diagnosis
- 8) Molecular genetics

## **20. Orthopedics:**

- 1) Major congenital orthopedic deformities
- 2) Bone and joint infections: Pyogenic and Tubercular
- 3) Rickets
- 4) Common bone tumors

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### **Pattern of Question Papers:**

1. **Objective Type Paper**
2. **Maximum Marks: 150**
3. **Number of Questions: 150**
4. **Duration of Paper: 2.30 Hours**
5. **All Questions carry equal marks**
6. **There will be Negative Marking**  
(For every wrong answer one-third of the marks prescribed for that Particular question shall be deducted.)