

Syllabus for the post of

(1) Professor, Paediatrics, Class-I (Advt. No.: 43/2019-20)

(2) Associate Professor, Paediatrics, Class-I (Advt. No.: 55/2019-20) (Special Recruitment)

(3) Assistant Professor, Paediatrics, Class-I (Advt. No.: 92/2019-20) (Special Recruitment)

(4) Assistant Professor, Paediatrics, Class-I (Advt. No.: 93/2019-20) (General Recruitment)

Marks – 200

Questions – 200

Medium - English

1. Understanding of Basic Sciences:

- embryogenesis of different organ systems especially heart, genitourinary system, gastrointestinal tract
- applied anatomy of different organs
- Physiology of micturition and defecation
- placental physiology, fetal and neonatal circulation
- regulation of temperature (especially newborn)
- acid base balance
- calcium metabolism
- hematopoiesis, hemostasis
- growth and development at
- nutrition
- normal requirements of various nutrients
- principles of basic immunology, bio-statistics managerial skills
- pharmacokinetics of commonly used drugs
- functions of kidney, liver, lungs, heart and endocrine glands
- blood pressure
- fluid electrolyte balance
- vitamins and their functions
- bilirubin metabolism
- puberty and its regulation
- different ages
- teaching methodology and and clinical epidemiology
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- microbial agents and their epidemiology
- epidemiology
- basics of genetics and molecular biology

2. Growth and development

- principles of growth and development
- normal growth and development in childhood and adolescence
- normal newborn
- normal growth and development,
- sexual maturation and its disturbances
- failure to thrive and short stature

3. Neonatology

- perinatal care
- care in the labor room and resuscitation
- prematurity
- common transient phenomena
- infections
- jaundice
- neurologic disorders
- renal disorders
- thermoregulation and its disorders
- low birth weight
- newborn feeding
- respiratory distress
- apnea
- anemia and bleeding disorders
- gastrointestinal disorders
- malformations
- understanding of perinatal medicine

4. Nutrition:

- maternal nutritional disorders; impact on fetal outcome
- infant feeding including complementary feeding
- protein energy malnutrition
- adolescent nutrition
- nutritional management of systemic illness (celiac disease, hepatobiliary disorders, nephrotic syndrome)
- nutrition for the low birth weight
- breast feeding
- vitamin and mineral deficiencies
- obesity
- parenteral and enteral nutrition in neonates and children

5. Cardiovascular:

- congenital heart diseases (cyanotic and acyanotic)
- infective endocarditis
- disease of myocardium (cardiomyopathy, myocarditis)
- hyperlipidemia in children
- rheumatic fever and rheumatic heart disease
- arrhythmia
- diseases of pericardium
- systemic hypertension

6. Respiratory:

- congenital and acquired disorders of nose
- tonsils and adenoids
- congenital anomalies of lower respiratory tract
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- foreign body in larynx trachea & bronchus
- infections of upper respiratory tract
- obstructive sleep apnea
- acute inflammatory upper airway obstruction
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- subglottic stenosis (acute and chronic)

- trauma to larynx
- neoplasm of larynx and trachea
- bronchitis
- aspiration pneumonia
- acute pneumonia
- suppurative lung disease
- atelectasis
- emphysema and hyper-inflation
- pulmonary edema
- bronchiolitis
- GER
- recurrent and interstitial pneumonia
- lung cysts
- bronchial asthma
- bronchiectasis
- pulmonary leaks
- pleural effusion
- mediastinal mass

7. Gastrointestinal and liver disease:

- disease of mouth
- disorders of deglutition and esophagus
- H. pylori infection
- congenital pyloric stenosis
- malabsorption syndrome
- irritable bowel syndrome
- hirschsprung's disease
- hepatitis
- chronic liver disease
- Budd-Chiari syndrome
- cirrhosis and portal hypertension
- oral cavity and tongue
- peptic ulcer disease
- foreign body
- intestinal obstruction
- acute and chronic diarrhea
- ulcerative colitis
- anorectal malformations
- hepatic failure
- Wilson's disease
- metabolic diseases of liver

8. Nephrologic & Urologic disorders:

- acute and chronic glomerulonephritis
- hemolytic uremic syndrome
- VUR and renal scarring
- renal tubular disorders
- congenital and hereditary renal disorders
- posterior urethral valves
- undescended testis
- nephrotic syndrome
- urinary tract infection
- renal involvement in systemic diseases
- renal and bladder stones
- hydronephrosis, voiding dysfunction
- Wilm's tumor

9. Neurologic disorders:

- seizure and non-seizure paroxysmal events
- meningitis
- brain abscess
- acute encephalitis and febrile encephalopathies
- epilepsy and epileptic syndromes of childhood
- coma
- Guillain-Barre syndrome
- HIV encephalopathy

- neurocysticercosis and other neuroinfestations
- SSPE
- neurometabolic disorders
- neuromuscular disorders
- learning disabilities
- acute flaccid paralysis and AFP surveillance
- movement disorders of childhood
- cerebral palsy
- neurodegenerative disorders
- mental retardation
- muscular dystrophies
- ataxia
- CNS tumors
- malformations

10. Hematology & Oncology:

- deficiency anemias
- aplastic anemia
- thrombocytopenia
- blood component therapy
- bone marrow transplant/stem cell transplant
- myelodysplastic syndrome
- non-Hodgkin's lymphoma
- hemolytic anemias
- pancytopenia, disorders of hemostasis
- transfusion related infections
- acute and chronic leukemia
- Hodgkin disease
- neuroblastoma
- hypercoagulable states

11. Endocrinology:

- hypopituitarism/hyperpituitarism
- pubertal disorders
- adrenal insufficiency
- adrenogenital syndromes
- hypoglycemia
- gonadal dysfunction and intersexuality
- diabetes insipidus
- hypo- and hyper-thyroidism
- Cushing's syndrome
- diabetes mellitus
- short stature
- obesity

12. Infections:

- bacterial
- fungal
- rickettsial
- protozoal
- protozoal and parasitic
- HIV
- control of epidemics and infection prevention
- viral
- parasitic
- mycoplasma
- tuberculosis
- nosocomial infections
- monitoring for nosocomial infections
- safe disposal of infective material

13. Emergency & Critical care:

- emergency care of shock
- respiratory failure
- status epilepticus
- fluid and electrolyte disturbances and its therapy
- poisoning
- scorpion and snake bites
- cardio-respiratory arrest
- acute renal failure
- acute severe asthma
- acid-base disturbances
- accidents

14. Immunology & Rheumatology:

- arthritis (acute and chronic)
- T and B cell disorders
- connective tissue disorders
- immuno-deficiency syndromes

15. ENT:

- acute and chronic otitis media
- post-diphtheritic palatal palsy
- acute/chronic tonsillitis/adenoids
- conductive/sensorineural hearing loss
- allergic rhinitis/sinusitis
- foreign body

16. Skin Diseases:

- exanthematous illnesses
- pigment disorders
- infections: pyogenic
- Steven-Johnson syndrome
- seborrheic dermatitis
- urticaria
- ichthyosis
- vascular lesions
- vesicobullous disorders
- fungal and parasitic
- eczema
- drug rash
- alopecia

17. Eye problems:

- refraction and accommodation
- night blindness
- strabismus
- retinopathy of prematurity
- optic atrophy
- partial/total loss of vision cataract
- chorioretinitis
- conjunctival and corneal disorders
- retinoblastoma
- pailledema

18. Behavioral & Developmental disorders:

- rumination
- enuresis
- sleep disorders
- breath holding spells
- pica
- encopresis
- habit disorders
- anxiety disorders

- mood disorders
- attention deficit hyperactivity disorders
- temper tantrums
- autism

19. Social pediatrics:

- national health programs related to child health
- child labor
- disability and rehabilitation
- national policy of child health and population
- child abuse and neglect
- adoption
- rights of the child
- juvenile delinquency

20. Genetics:

- principles of inheritance
- chromosomal disorders
- multifactorial/polygenic disorders
- prenatal diagnosis
- pedigree drawing
- single gene disorders
- genetic diagnosis

21. Orthopedics:

- major congenital orthopedic deformities
- tubercular
- bone and joint infections: pyogenic
- common bone tumors

22. Approach to Important Clinical Problems

23. Skills

24. Community and Social Pediatrics

25. RESEARCH METHODOLOGY.

26. MEDICO LEGAL ASPECTS RELEVANT TO THE DISCIPLINE.

27. INDIAN MEDICAL COUNCIL (PROFESSIONAL CONDUCT, ETIQUETTE AND ETHICS) REGULATIONS, 2002.

28. CURRENT TRENDS AND RECENT ADVANCEMENTS IN THE FIELD OF PEDIATRICS.