

જાયાનું નામ: (૧) લેક્ચરર સિલેક્શન સ્કેલ(પ્રોફેસર),વર્ગ-૧ (જાહેરાત ક્રમાંક.૧૩/૧૭-૧૮) અને

(૨) લેક્ચરર સિનિયર સ્કેલ (રીડર), વર્ગ-૧ (જાહેરાત ક્રમાંક.૨૯/૧૭-૧૮)

વિષય: “કૌમાર ભૃત્ય”

કુલ પ્રશ્નો:૩૦૦	પ્રાથમિક કસોટીનો અભ્યાસક્રમ	કુલ ગુણ -૩૦૦
Part-I		
માધ્યમ: ગુજરાતી	સામાન્ય અભ્યાસ	ગુણ -૧૦૦
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને સ્થાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૩	ભારતનો ઇતિહાસ - ગુજરાતના ખાસ સંદર્ભ સાથે	
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન	
૫	<u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u> (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના (૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ (૯) એટર્ની જનરલ (૧૦) નીતિ આયોગ (૧૧) પંચાયતી રાજ (૧૨) નાણા પંચ (૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીય સતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ	
૬	સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી	
૭	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	
૮	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	

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**Syllabus of Preliminary Test for the recruitment of Lecturer Selection Scale (Professor), Class-I (advt.No.13/17-18) and Lecturer Senior Scale (Reader), Class-I, (Ayurveda) (advt.No.29/17-18)**

**(Kaumarbhritya)**

Total Questions:300 Syllabus of Preliminary Test Total Marks-300

**Part-I**

Medium: Gujarati General Study Marks- 100

1	Geography of India- Physical, Economic, Social, Natural Resources and population related topics- with special reference to Gujarat
2	Cultural heritage of India- Literature, Art, Religion and Architecture- with special reference to Gujarat
3	History of India with special reference to Gujarat
4	Indian Economy and Planning
5	<u>Indian Polity and the Constitution of India:</u> (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principles of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society (9) Attorney General (10) NITI Aayog (11) Panchayati Raj Institutions (12) Finance Commission (13) Constitutional and Statutory Bodies: Election Commission of India, Union Public Service Commission, State Public Service Commission, Comptroller and Auditor General; Central Vigilance Commission, Lokpal and Lokayukta, Central Information Commission
6	General Mental Ability
7	General Science, Environment and Information & Communication Technology
8	Daily events of Regional, National and International Importance including Sports

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**Part-II Syllabus Of Concerned Subject**

**(Kaumarbhritya)**

**Medium: English**

**Questions:200**

**Marks : 200**

1. General introduction and scope of Kaumarbhritya (Ayurvedic Pediatrics), Definitions and terminologies used in Kaumarbhritya. Development of Kaumarbhritya tantra including ancient and modern literature. Strength of Ayurveda specific to child health care. Basic Concepts of growth and development, and its assessment. Scientific contribution of Kashyapa Samhita in Kaumarbhritya.
2. Concept of Bala Rasayana and its application in physical and mental health of children. Concept of VyadhiKshamatva avam Vardhanopaya, immunity and immune enhancing measures including immunization.
3. Vayobheda (Classification of age) according to different classics. Anatomical and physiological differences in child compared to adult.
4. Ayurvedic consideration of physiology and pathology of Dosha, Dhatu, Mala, Oja, Agni, Prakriti (sharirikamanasika), Kaya and Dhatuposhana in children.
5. Ayurvedic and modern clinical methods of examination of healthy and diseased newborn and children. Knowledge of modern diagnostic tools like clinical and laboratory investigations, X-ray, USG, MRI etc. Applied pharmacological considerations: Ayurvedic and modern concepts of drug doses, administration, distribution, metabolism, excretion, and other important factors of consideration.

6. Fundamentals of Ayurvedic treatment for childhood disorders. Principles of Child Psychology (Ayurvedic & modern concepts). National programs related to pediatrics. Childhood Samskara.

**7. Prakrita Bija-Bijabhaga-Bijabhagavayava evam Tadjanya Vikriti**

- Ayurvedic genetics with modern interpretations: Shukra, Shonita, Shukra Shonita Doshas, Bija-Bijabhaga-Bijabhagavayava Vikriti, Matrija and Pitraja Bhavas, Yajjah Purushiya and Atulyagotriya; Measures for obtaining good progeny.
- Modern genetics: Basic concepts, Human Chromosomes, Single gene pattern inheritance: Autosomal & Sex chromosomal pattern of inheritance, Intermediate pattern and multiple alleles, Mutations, Non Mendelian inheritance, mitochondrial inheritance, Genomic imprinting, parental disomy. Criteria for multi-factorial inheritance.
- Pathogenesis of chromosomal aberrations and their effects, recombinant DNA, genetic inheritance, inborn errors of metabolism, Chromosomal abnormalities, Multifactorial pattern of inheritance: Teratology, Cancer Genetics – Haematological malignancies, Pharmacogenetics.
- Chromosomal disorders, Chromosomal aberration (Klinefelter, Turner and Down's syndrome, Genetic Counseling, Ethics and Genetics.

**8. Prakrita Bija-Bijabhaga-Bijabhagavayava evam Tadjanya Vikriti**

- Garbha (embryo), Garbhawastha (gestation period), sperm, ovum; spermatogenesis; oogenesis; structure of ovum.
- Sperm in the male genital tract; sperm in the female genital tract, activation and capacitation of sperm.
- Garbha Masanumasika Vriddhi evam Vikasa (Ayurvedic and modern concepts of Embryo and Fetal development), First,

Second, and Third week of development, Fourth to eighth week of development (Embryonic period), Development from third month till birth (Fetal period)

- Formation of Prakriti, their assessment in children viz. Bala, Kumara, Yauvana; Pathya-Apathya according to Prakruti.
- Apra (Placenta) Apra Nirmana (Formation of placenta), Apra Karya (Functions of placenta); Apra Vikara (Placental abnormalities)
- Nabhinadi (Umbilical Cord) Formation and features of umbilical cord
- Garbha Poshana (Nutrition- from conception to birth)
- Yamala Garbha (twins)
- Garbha Vriddhikara Bhavas, Garbhopaghatkara Bhavas.
- Effect of maternal medication, diet and illness over fetus.
- Teratology including defects of bija, atma karma, kal, ashaya etc.: causative factors for teratogenicity, mode of actions of teratogenes, critical periods
- Perinatal Care and Perinatal complications. Scientific study of Jataharini specific to children. Prenatal diagnosis
- Samanya Janmajata Vikara. Sahaja Hridaya Vikara, Jalashirshaka, Khandaoushtha, Khanda-Talu, Sanniruddha Guda, Pada-Vikriti, Tracheoesophageal Fistula, Spina bifida, Meningocele, Meningomyelocele, Pyloric Stenosis.

## **9. Navajata Shishu Vigyan evam Poshana**

- Navajata Shishu Paribhasha, Vargikarana, Paricharya evam Prana-Pratyagamana. Samanya Navajata Shishu Paricharya.
- Samaya purva evam Samaya pashchat Jata Shishu Paricharya.
- Prasava Kalina Abhighataja Vyadhi: Upashirshaka, Bhagna, Mastishkantargata Raktasrava (ICH, IVH, Subdural hemorrhage)
- Navajata Shishu Parikshana: Ayu Parikshana (including Lakshanadhyaya) Modern approach of Neonatal Examination including gestational age assessment

- Kumaragara: Navajata Shishu Kaksha Prabandhana, NICU, Nursery plan, staff pattern, medical records, Visankramnikarana (sterilization), Knowledge of equipments used in nursery.
- Navajata Shishu Vyadhi: Hypothermia, Shvasavarodha, Ulvaka, Rakta Vishamayata, Kamala, Akshepaka, Pandu, Atisara, Asamyaka Nabhinal kartanjanya vyadhi.
- Navjata Kshudra Vikara: Chhardi, Vibandha, Udara shul, Puya Sphota, Shishu Netrabhishyanda.
- Sadyojatasya Atyayayika Chikitsa: Shock, Fluid and electrolyte imbalance, Convulsion, Hemorrhagic diseases of Newborn etc.
- Procedures: Shiro-Pichu, Abhyanga, Parisheka, Pralepa, Garbhodaka Vamana, Ashchytana Neonatal resuscitation techniques, Blood sampling, Intravenous canulation, Umbilical vein catheterization, Bone marrow aspiration, Phototherapy, Naso-Gastric tube insertion, Urethral catheterization, Exchange blood transfusion, Thoracocentesis, Bone marrow infusion, Lumbar puncture
- Nutrition:
  - A. Navjat Shishu Ahara:** Specific Feeding methodology as per Ayurveda and recent advances; Day to day fluid, milk, caloric requirement for the newborn, feeding technique for the preterm baby. Stanyotpatti and Prasruti, Stanya Samghatana, Stana Sampat, Stanya Sampata evam Mahatva, Stanya-Piyusha; Stanya-Pana-Vidhi, Stanyakshaya / Stanyanasha, Stanya parikshana, Stanyabhava Pathya Vyavastha, Various feeding methods, TPN (Total Parenteral Nutrition). Stanyadosha, Stanya Shodhana, Stanya Janana and Vardhanopakrama, Dhatri: Dhatri Guna and Dosha, Concept of Breast Milk Banking. Lehana.
  - B. Bala-Poshana:** Daily requirements of nutrients for infant and children, Common food sources, Satmya and Asatmya Ahara, Pathya evam Apathya Ahara, Stanyapanayana.

## 10. Balrog (Pediatric Disorders)

- Pranvaha Srotasjanya Vyadhi
- Annavaha Srotasjanya Vyadhi
- Rasa evam Raktavaha Srotasjanya Vyadhi
- Mamsavaha Srotasjanya Vyadhi
- Mutravaha srotasjanya Vyadhi
- Vataavaha Sansthanjanya Vyadhi
- Pediatric disabilities and Rehabilitation: Cerebral palsy, Arditā (Facial paralysis), Pakshavadha (Hemiplegia), Ekangaghata (Monoplegia), Adharanga Vayu (diplegia), Amavata (Juvenile Rheumatoid arthritis)
- Manovaha Srotasa Vyadhi
- Antahsravi evam Chayapachayajanya Rog
- Kuposhanjanya Vyadhi
- Krimi evam Aupsargika Rog
- Tvaka Vikara
- Anya Vyadhyi (Miscellaneous disorders): Jalodar (Ascites), Gandamala, Apachi (Cervical lymphadenitis), Kukunakadi Akshi Rog, Hodgkin & non-Hodgkin Lymphoma, Abnormal growth patterns, Short stature , Niruddha prakash (Phimosis), Paridagdha Chhavi, Utpullika.
- Samghata- Bala Pravrita Rog (damstra): Dog bite. Snake bite, Scorpion bite etc .
- Atyayika Balarog Prabandhana: Shock and Anaphylaxis, Fluid and electrolyte management, Drowning, Foreign body aspiration, Status epilepticus, Acute hemorrhage, Acute renal failure, Febrile convulsion, Status asthmaticus, Burn, Acute Poisoning.
- Balagraha: Scientific study of Graha Rogs.
- Life Style disorders

## 11. Kaumarabhritya in Ancient Classics and recent Advances

- Significant contributions of Kashyapa samhita, Arogya raksha Kalpadrum and other texts /treatises of Ayurveda such as Harita

Samhitain the field of Kaumarbhritya including relevant parts from Brihatrai

- Panchakarma: Principles of Panchakarma and their application in pediatric practice in detail.
- Update knowledge of clinical pediatrics including recent researches in Kaumarbhritya.
- Fundamentals of Hospital management with special emphases on Pediatric Ward.

**12. Research Methodology:** Brief historical background of research in Ayurved and contemporary medical science. Research in Ayurved - Scope, need, importance, utility. Types of Research, Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative. Research process, Research tools. The concept and importance of ethics in research, Ethical aspects related to human and animal experimentation. Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Classical Methods of Research. Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences. Concept of Evidence Based Medicine and Scientific Writing, Importance of IT in data mining and important research data portals concerned with Ayurved and contemporary medical science (DHARA, PubMed, AYUSH Research Portal, Bioinformatics Center, Research Management Informatic System etc.), Medical-Statistics.

**13. Current Trends and Recent Advancements in Ayurveda.**