

Syllabus for the Preliminary Test

જગ્યાનું નામ- નિયામકશ્રી, આયષુ (આયુર્વેદ, યોગા અને નેચરોથેરાપી, યુનાની, સિધ્ધા અને હોમીયોપેથી પધ્ધતિ)ની કચેરી હસ્તક હોમિયોપેથીના ફિજીયોલોજી ઈન્કલુડીંગ બાયોકેમેસ્ટ્રી વિષયના એસોસિયેટ પ્રોફેસર / રીડર, ગુજરાત રાજ્ય સેવા, વર્ગ-૧ (જાહેરાત ક્રમાંક-૬૦/૨૦૧૮-૧૯)

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	<p><u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u></p> <p>(૧) આમુખ</p> <p>(૨) મૂળભૂત અધિકારો અને ફરજો</p> <p>(૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો</p> <p>(૪) સંસદની રચના</p> <p>(૫) રાષ્ટ્રપતિની સત્તા</p> <p>(૬) રાજ્યપાલની સત્તા</p> <p>(૭) ન્યાયતંત્ર</p> <p>(૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ</p> <p>(૯) એટર્ની જનરલ</p> <p>(૧૦) નીતિ આયોગ</p> <p>(૧૧) પંચાયતી રાજ</p> <p>(૧૨) નાણા પંચ</p> <p>(૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્યુટર એન્ડ ઓડિટર જનરલ; કેન્દ્રીય સતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ</p>	
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	

Syllabus for the Preliminary Test

Post: Associate Professor / Reader (Physiology including Biochemistry), Class-1 in Homoeopathy College (Advt.No.60/2018-19)	
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

Syllabus for the Preliminary Test

**Post: Associate Professor / Reader (Physiology including Biochemistry),_Class-1
in Homoeopathy College (Advt.No.60/2018-19)**

Part-II Syllabus Of Concerned Subject

(Homeopathy) (Physiology including Biochemistry)

Marks – 200

Questions-200

Medium: English

1. Homoeopathic Philosophy

Concepts of principles and practice, Homoeopathic philosophy. Symptomatology. Causations. Case taking. Case processing.

2. General physiology

Introduction of cellular physiology, cell junction, transport through cell membrane and resting membrane potential, body fluids compartments, homeostatics.

3. Body Fluids

Blood, Plasma protein, red blood cells, erythropoiesis, haemoglobin and iron metabolism, erythrocytes sedimentation rate, Packed cell volume and blood indicates, Anaemia, Haemolysis and fragility of red blood cell, white blood cell, Immunity, Platelets, Haemostasis, Coagulation of blood, blood groups, blood transfusion, blood volume, Reticulo-endothelial system and tissue macrophage, Lymphatic system and lymph, Tissue fluid and Oedema.

4. Cardio-vascular system

Introduction of cardio-vascular system, properties of cardio-vascular system, structure of Heart and Cardiac muscles, cardiac cycle, general principal of circulations, heart sounds, regulations of cardiovascular system, normal and abnormal electrocardiogram, cardiac output, heart rate, arterial blood pressure, radial pulse, regional-circulation- cerebral, Splanchnie, capillary, Cutaneous &

skeletal muscle circulations, cardiovascular adjustments during exercise. Echocardiography, Sonography, Peripheral vascular Flow.

5. Respiratory system and environmental physiology

Physiological anatomy of respiratory tract, Mechanism of respiration: Ventilation, diffusion of gases, Transport of respiratory gases, regulation of respiration, pulmonary function tests, high altitude and space physiology, deep sea physiology, artificial respiration, effects of exercise on respiration. Lung Volume Capacity.

6. Digestive system

Introduction to digestive system, Composition and functions of digestive juices, Physiological anatomy of Stomach, Pancreas, Liver and Gall bladder, Small intestine, Large intestine, Movements of gastrointestinal tract, Gastrointestinal hormones, Digestion and absorption of carbohydrates, proteins and lipids. Hepato biliary system, Enzymatic activity of Gastrointestinal tract and liver.

7. Renal physiology and skin

Physiological anatomy of kidneys and urinary tract, Renal circulation, Urine formation: Renal clearance, glomerular filtration, tubular reabsorption, selective secretion, concentration of urine, acidification of urine, Renal function tests, Micturition, Skin, Sweat, Body temperature and its regulation.

8. Endocrinology

General Principles, Introduction to endocrinology, Hormones and hypothalamo-hypophyseal axis, Pituitary gland, Thyroid gland, Parathyroid, Endocrine functions of pancreas, Adrenal cortex, Adrenal medulla, Endocrine functions of other organs.

Superarenal glands, Gonads.

9. Reproductive system

Male reproductive system- testis and its hormones; seminal vesicles, prostate gland, semen., Introduction to female reproductive system, Menstrual cycle, Ovulation, Menopause, Infertility, Pregnancy and parturition, Placenta, Pregnancy tests, Mammary glands and lactation, Fertility, Foetal circulation.

10. Central nervous system

Introduction to nervous system, Neuron, Neuroglia, Receptors, Synapse, Neurotransmitters, Reflex, Spinal cord, Somato-sensory system and somato-motor system, Physiology of pain, Brainstem, Vestibular apparatus, Cerebral cortex, Thalamus, Hypothalamus, Internal capsule, Basal ganglia, Limbic system, Cerebellum - Posture and equilibrium 19. Reticular formation, Proprioceptors, Higher intellectual function, Electroencephalogram (EEG), Physiology of sleep, Cerebro-spinal fluid (CSF), Autonomic Nervous System (ANS).

11. Special senses

Eye: Photochemistry of vision, Visual pathway, Pupillary reflexes, Color vision, Errors of refraction, Ear: Auditory pathway, Mechanism of hearing, Auditory defects, Sensation of taste, smell and touch.

12. Nerve muscle physiology

Physiological properties of nerve fibres, Nerve fibre types, classification, peripheral nerves, Neuro-Muscular junction, Physiology of Skeletal muscle, Physiology of Cardiac muscle, Physiology of Smooth muscle, EMG and disorders of skeletal Muscles.

13. Bio-physical sciences

Filtration, Ultra filtration, Osmosis, Diffusion, Adsorption, Hydrotropy, Colloid, Donnan Equilibrium, Tracer elements, Dialysis, Absorption, Assimilation, Surface tension.

14. Anatomy

General Anatomy: Modern concepts of cell and its components, cell division, types with their significance, Tissues, Genetics. Development Anatomy. Regional anatomy.

15. Biochemistry

Carbohydrates, Lipids, Proteins, Enzymes, Vitamins, Minerals. Organ function tests.

16. Research methodology

Research Biomedicine, Need of Research and Research Challenges in Homoeopathy, Types of Research Studies. Planning of Research Studies, Design and control of clinical trials, Data collection and Data management, Assessing and reporting adverse events, Ethical issues in biomedical research, Writing & Publishing research studies.

17. Biostatistics

Definition and scope of Biostatistics in clinical research, Types of data methods of data presentation, Descriptive statistics (Mean, Median, Mode, SD and Variance etc.), Correlation and regression, sampling techniques and sample size estimation, Measure of Mortality, Data analysis, Use of statistical software, Organon of Medicine and Homoeopathic philosophy, Homoeopathic material medica, and Repertory.

18. Legislations relating to medical profession

The Homoeopathy Central Council Act, 1973 (59 of 1973). The Medical Termination of Pregnancy Act, 1971 (34 of 1971); the Drugs and Cosmetics Act, 1940 (23 of 1940) and the rules made therein; Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994. Homoeopathic Practitioners (Professional Conduct, Etiquette and Code of Ethics) Regulations, 1982.

19. Current Trends and recent Advancements in the field of Homeopathy.