



Government of India

Ministry of Railway
RAILWAY RECRUITMENT BOARD



RRB-CEN 02/2019 Syllabus

Annexure-C		
Syllabus for various posts in Paramedical Categories - CEN 02/2019		
Cat. No	Post	Syllabus
1	Dietician	Introduction to Human Biology and Body Functions, Nutrients (Role and Significance), Understanding Nutrition (Basic diets for normal conditions/RDA) , Advanced Nutrition, Introduction to Nutraceuticals, Introduction to Special Conditions and Diet Therapy, Introduction to Clinical Nutrition, Food Microbiology, Recommend Approaches to Disease and Nutrition, Nutritional Biochemistry, Research Method Statistics, Medical Nutrition management, Path Physiology and Metabolism in Disease, Public Nutrition and Health, Pediatric and Geriatric Nutrition, Food Allergies and Diet Management
2	Staff Nurse	Anatomy, Physiology, Nutrition, Biochemistry, Nursing Foundations, Psychology, Microbiology, Sociology, Pharmacology, Pathology, Genetics, Medical-Surgical Nursing , (Adult including Geriatrics)- I, Community Health Nursing, Child Health Nursing, Mental Health Nursing, Midwifery and Obstetrical Nursing, Nursing Research & Statistics, Management of Nursing Services and Education
3	Dental Hygienist	Dental Hygiene AND Oral Prophylaxis, Community Health Dentistry, Operative Room Technique and Chir Side Assistance, Dental Ethics and Jurisprudence, Dental Materials, Anatomy (General & Dental), Physiology (General & Oral), Pharmacology (General & Dental), Pathology & Bacteriology (General & Dental), Dental Radiology
4	Dialysis Technician	Anatomy, Biochemistry & Pharmacology, Physiology, Introduction to Kidney diseases, Principles and practice of Dialysis
5	Extension Educator	Methodology and Perspectives of Social Sciences, The Essence of Sociology, Social Research Methods, Foundations of Sociological Thought, Social stratification, Environment and Society, Modern Sociological Theories, Perspectives on Indian Society, Culture and Personality, Industry and Society, Open course, Crime and Society, Gerontology, Sociology of Development, Tribal Society in India
6	Health & Malaria Inspector Grade III	Food & Nutrition, Environmental Sanitation and Sanitary Engineering, Communicable and Non-Communicable Diseases (Prevention and Control), Health and Death Statistics

7	Lab Superintendent Grade-III	Sociology & Psychology, PHYSIOLOGY, Basic Chemistry and Biochemistry, General Methodology, PHYSICS, Histopathology and cytology techniques, Clinical pathology & basic haematology, PARASITOLOGY & ENTOMOLOGY, Clinical biochemistry, Coagulation & transfusion medicine, Immunohaematology, VIROLOGY, MYCOLOGY, ADVANCED SEROLOGY
8	Optometrist	Physical and Geometrical Optics, General Anatomy and General Physiology, Ocular Anatomy and Ocular Physiology, Basic Biochemistry, Nutrition, Principles of Lighting, Hospital Procedures, Optometric Optics, Ocular Diseases, Visual Optics, Pharmacology, Pathology and Microbiology, Optometric Instruments, Clinical Examination of Visual System, Clinical Psychology, Clinics, Binocular vision, Glaucoma, Low Vision Dispensing Optics, Pediatric Optometry and Geriatric Optometry, Aids, Contact Lens, Law & Optometry and Occupational Optometry, Systemic Diseases, Epidemiology and Bio Statistics, Public Health and Community Optometry

Syllabus for various posts in Paramedical Categories - CEN 02/2019

Cat. No	Post	Syllabus
9	Perfusionist	Basics of Anatomy, Basics of Physiology, Basics of Biochemistry, Basics of Bio-statistics, Basics of Pathology, Basics of Blood Banking, Basics of Microbiology, Basics of Central Sterilization Services, Hospital Awareness, Familiarization of different tables/tubes in surgical department, Surgical Awareness, preparation of patient for surgery, Patient related services, Anatomy, Physiology, Basics of Diagnostic techniques, Angiography, Oxygenators, Theory of Blood Pump, Gross Anatomy and Structural Features of Heart, Oxygenation, Monitoring, Instrumentation and measurements, Patho Physiology and Pharmacology & Perfusion Techniques, Adequacy of Perfusion, Applied Perfusion Technology, Introduction to Perfusion Technology, Perfusion Equipments, Biomedical Electronics, Perfusion problems during radio pulmonary bypass, Cardio Pulmonary By-Pass, Clinical Application of Bypass Techniques, Occupational Aspects of Perfusion, Postoperative Intensive Care unit Management, Instrumentation Study, Instrument Measurement & Critical Care equipment.
10	Physiotherapist	Psychology & Sociology, Anatomy, Physiology, Applied Physiology, Basic and Applied Physics for Physiotherapy, Basic Nursing & First Aid, Orientation to Physiotherapy, General Medicine/General Surgery/Paediatrics/ Geriatrics, Bio-mechanics, Applied Anatomy & Kinesiology, Exercise Therapy, Microbiology and Pathology, Electrotherapy(low & medium frequency), Electrotherapy (high freq & Actinotherapy), Community Medicine, Clinical Orthopaedics, Clinical Cardio-Respiratory Diseases, Bio Statistics & Research Methodology, Physical Modalities Maintenance, PT in Orthopaedics, PT

		in Neurology, Pt in Cardio Respiratory Conditions, Rehabilitation Medicine, Advanced Physiotherapeutics, Physical Education
11	Pharmacist Grade-III	Human Anatomy and Physiology, Pharmaceutical Analysis, Pharmaceutics, Pharmaceutical Inorganic Chemistry, Remedial Biology/Remedial Mathematics, Pharmaceutical Organic Chemistry, Biochemistry, Pathophysiology, Computer Applications in Pharmacy, Environmental sciences, Physical Pharmaceutics, Pharmaceutical Microbiology, Pharmaceutical Engineering, Medicinal Chemistry, Pharmacology, Pharmacognosy and Phytochemistry, Industrial Pharmacy, Pharmaceutical Jurisprudence, Herbal Drug Technology, Biopharmaceutics and Pharmacokinetics, Pharmaceutical Biotechnology, Quality Assurance, Instrumental Methods of Analysis, Pharmacy Practice, Novel Drug Delivery System, Biostatistics and Research Methodology, Social and Preventive Pharmacy, Pharma Marketing Management, Pharmaceutical Regulatory Science, Pharmacovigilance, Quality Control and Standardization of Herbals, Computer Aided Drug Design, Cell and Molecular Biology, Cosmetic Science, Experimental Pharmacology, Advanced Instrumentation Techniques, Dietary Supplements and Nutraceuticals
12	Radiographer	Human Anatomy & Physiology, Radiology Physics, General Physics, Radiation Physics & Physics of Diagnostic Radiology, X-Ray Machines & Accessories, Maintenance, X-ray Film / Image processing Techniques (Dark Room Techniques), Clinical Radiography-Positioning, Medical Ethics and patient care, Principles of Medical Emergencies, Equipments, Techniques of modern Imaging Modalities, Contrast & Special Radiography procedures, Quality Control at Radiology & Radiation Safety
13	Speech Therapist	Sound and Hearing, Anatomy and Physiology of ear, Hearing loss, Evaluation of hearing, Early identification and prevention, Speech & Language Pathology, Anatomy and physiology of speech mechanism, Disorders of speech and language, Assessment of speech disorders, Assessment of language disorders, Hearing aids and earmolds, Auditory learning, Speech reading, Education of children with hearing impairment, Rehabilitation, Disability issues, Management of speech disorders, Management of language disorders, Educational issues, General issues in management
14	ECG Technician	Anatomy, Physiology, Biochemistry, Pharmacology, Introduction to Cardiovascular Diseases, Basic Cardiovascular Investigations, Advanced Cardiovascular Investigations
15	Lady Health Visitor	Community Health Nursing, Health Promotion, Primary Health Care, Midwifery, Child Health Care Nursing, Health Center Management
16	Lab Assistant Grade II	Anatomy, Physiology, Biochemistry, Fundamentals of Medical laboratory Technology, Microbiology, Clinical biochemistry, Pathology & Histopathology, Haematology and Blood and bank

Common for all posts indicated in CEN 02/2019

Sl. No	Subject	Syllabus
1	General Arithmetics	Number systems, BODMAS, Decimals, Fractions, LCM and HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry, Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock, Pipes & Cistern
2	General Intelligence and Reasoning	Analogies, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and Decision Making, Similarities and Differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc.
3	General Awareness	Knowledge of Current affairs, Indian geography, culture and history of India including freedom struggle, Indian Polity and constitution, Indian Economy, Environmental issues concerning India and the World, Sports, General scientific and technological developments etc.
4	General Science	Physics, Chemistry and Life Sciences (up to 10th Standard CBSE syllabus).