

Malaviya National Institute of Technology Jaipur
Centre for Rural Development (CRD)
Syllabus for Ph.D. Entrance Examination

Section 1: Rural Development:

Major Rural Development plans and programmes India adopted by government of India in last ten years, Impact of Various schemes, Target Area Approach, Participatory Approach of Rural Development, Panchayati Raj and its Impact, National Rural Livelihood Mission etc.

Section 2: Sustainable Agriculture:

Positive and Negative impact of green revolution, Soil health-impacts & remediation, Various techniques of organic farming and soil fertility enhancing techniques, Composting and application of bio-fertilisers, Bio-pesticides, and bio-controls, bio-remediation, Mixed and Multi-crops, Mixed Farming (Agriculture and livestock rearing), value addition, processing and marketing, Demands of herbal, promotion of herbal and medicinal plants cultivation.

Section 3: Appropriate Technology:

Concept of Appropriate Technology, Transfer of Technologies in Rural India, technological interventions in hand tools & farms machinery for improving effectiveness and efficiency of rural craftsmen. Low-cost and sustainable technologies in the field of agriculture, cottage industries, Forest products, housing, rural sanitation, wastewater treatment, local and vernacular architecture, green building, water resources management, energy security solutions for rural areas, traditional storage and food processing techniques. Promotion of small businesses and agro-industries in rural India, Promotion of circular and green economy.

Section 4: Rural Empowerment and Livelihood:

E-Governance for Rural Development, application of IT, Major Schemes for the weaker sections, Socio-economic and cultural reasons of their backwardness, empowerment through education, technical skills, vocational skills and helping them establishing rural or urban start-ups, self-help groups and micro credits system for the economic empowerment, impact of various schemes, schemes for Rural Artisans, Sustainable livelihood approach, Social entrepreneurship, Rural innovation.

Section 5: Climate Change and Environmental Management:

Climate change and the factors for climate change, greenhouse gases and its impact, Impact of Climate change in Agriculture, National Mission on Climate Change, Carbon Credits in Good Agricultural Practices, Climate Smart Agricultural Practices and future planning, Water and waste water quality- pH, Alkalinity, Hardness, BOD,COD; Ambient air quality.