

**Syllabus for the preliminary test for the recruitment on the post of
Radiologist, Class I in the Medical Services under the Employees State
Insurance Scheme**

(Advt.No. 02/2022-23)

Marks – 200

Questions - 200

Medium - English

1. Anatomy

- Gross and cross sectional anatomy of all the body systems.

2. Pathology

- Gross morphology of pathological conditions of systemic diseases affecting all organ systems.

3. Radiology Course

- Chest
- Cardiovascular system
- Musculoskeletal including soft tissue
- Gastrointestinal system
- Hepato-biliary-pancreatic system
- Urogenital (genito-urinary) system
- CNS including head and neck
- Obstetrics and gynaecology
- ENT, eye, dental, breast
- Endocrine and metabolic system
- Clinically applied radionuclide imaging

4. Radiological Physics

- Introduction of general properties of radiation and matter: Fundamentals of nuclear physics and radioactivity
- Interaction of x-rays and gamma rays with matter and their effects on irradiated materials
- X-ray Generating Apparatus
- Screen-film radiography
- Film processing: Dark room, dry processing, laser /dry chemistry cameras, artifacts.
- Fluoroscopy: Digital including flat panel units, fluoroscopy cum radiography units
- Digital radiography: Computed Radiography, Flat panel radiography
- Other equipments: Ultrasound including Doppler, CT, MRI and DSA
- Contrast Media (Iodinated, MR & Ultrasound) - types, chemical composition, mechanism of action, dose schedule, route of administration, adverse reaction and their management
- Nuclear Medicine: Equipments and isotopes in various organ systems and recent advances
- Picture Archiving and Communication System (PACS) and Radiology
- Information System (RIS) to make a film-less department and for Teleradiology
- Radiation protection, dosimetry and radiation biology
- Image quality and Quality Assurance (QA)
- Recent advances in radiology and imaging

5. Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002.

6. Medico Legal aspects relevant to the discipline.

7. Current Trends and Recent Advancements in the field of Radiology