

Syllabus for the preliminary test for the recruitment on the post of Radiologist, Gujarat Health and Medical services (Specialist Service),

Class-1

Advt No- 01/2020-21

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 Tele radiology, Radiation protection, dosimetry and radiation biology
- Image quality and Quality Assurance (QA)
- Recent advances in radiology and imaging

5. Current Trends and Recent Advancements in Radiology.