

Rajiv Gandhi University of Health Sciences, Karnataka
II Year B.Sc. Imaging Technology Degree Examination – 21-Nov-2024

Time: 3 Hours

Max. Marks: 40 Marks

Physics of Radiology – (RS-3)

Q.P. Code: 1353

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1353 and 1354 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One)

1 x 10 = 10 Marks

1. Explain the construction, working and designs of rotating anode X-ray tube with a neat, labelled diagram.
2. Explain in detail X-ray interaction with matter.

SHORT ESSAYS (Answer any Three)

3 x 5 = 15 Marks

3. Thermionic emission and photoelectric emission.
4. Explain absorbed and equivalent dose.
5. Radioactive decay and artificial radioactivity.
6. Explain anode heel effect and line focus principle.

SHORT ANSWERS (Answer any Five)

5 x 3 = 15 Marks

7. Fluorescence and phosphorescence.
8. Half value thickness.
9. Conductors and insulators.
10. Inverse square law.
11. Atomic number and mass number.
12. Linear attenuation co-efficient.
