Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Imaging Technology Degree Examination – MARCH 2018

Time: 3 Hours   **Max. Marks: 40 Marks**

Physics of Radiology
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. Describe the various radioactive disintegration processes.

2. Explain in detail interaction of x-ray with matter.

SHORT ESSAYS (Answer any Three)   **3 x 5 = 15 Marks**

3. Transformer losses

4. Describe briefly cooling of x-ray tube.

5. Electromagnetic spectrum

6. Define rectification and explain full wave rectification.

SHORT ANSWERS (Answer any Five)   **5 x 3 = 15 Marks**

7. Define Ohm's law and Kirchhoff's law.

8. Thermionic emission

9. Line focus principle

10. Define linear attenuation coefficient.

11. Define exposure and absorbed dose with the units.

12. Semiconductors

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