

Rajiv Gandhi University of Health Sciences, Karnataka
II Year B.Sc. Imaging Technology Degree Examination – Sep 2012

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 principles of self and mutual induction and the transformers based on these principles
2. Explain in detail the concepts of dose equivalent and effective dose equivalent and their importance for radiation protection

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

3. Transient and secular equilibrium
4. Capacitors in series and parallel
5. Transformer construction
6. Radioactive disintegrations

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

7. Difference between exposure and absorbed dose
8. Half life of a radioisotope
9. Resistance
10. Atomic number and mass number
11. Coulomb's law
12. X - ray beam quality
