

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM
(Deemed to be University)**

**DIPLOMA IN RADIOLOGY AND IMAGING TECHNOLOGY
EXAMINATION – February 2020
First Year**

**GENERAL PHYSICS, RADIATION PHYSICS AND PHYSICS OF
DIAGNOSTIC RADIOLOGY**

Time: Three hours

Maximum: 75 marks

I. Write an essay on any **ONE** of the following: (1 x 20 = 20)

1. Explain Characteristic Radiation and Bremsstrahlung Radiation.
2. Explain the types of x- ray interaction with matter.

II. Write short notes on any **TWO** of the following: (2 x 10 = 20)

3. Factors affecting spatial resolution.
4. Properties of x- rays.
5. TLD badge.
6. Structure of an atom with diagram.

III. Write short answers on any **SEVEN** of the following: (7 x 5 = 35)

7. Coulomb's Law.
8. Photoelectric effect.
9. Ohm's law and Kirchoff's law.
10. Cathode ray oscilloscope.
11. Radiation protection of employees.
12. Line focus principle.
13. Force and work.
14. Thermionic emission.
15. Radioactive decay.
16. Pocket dosimetry.
