

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

**DIPLOMA IN RADIOLOGY AND IMAGING TECHNOLOGY**  
**EXAMINATION – August 2019**  
**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. Describe in detail production of x-ray with neat labeled diagram.
2. Discuss in detail the various principals of radiation detection and measurements.

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

3. Electromagnetic induction
4. X-ray radiation measurement
5. Pocket dosimeter
6. X-ray tube

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

7. Atom
8. Radiation and survey meter
9. Gamma rays
10. Cathode ray oscilloscope
11. Transformers
12. Ionization
13. Thermionic emission
14. X-ray circuits
15. Cathode and anode
16. Einstein's formula