

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0522]**

**MAY 2022**

**Sub. Code: 3601**

**POST GRADUATE DIPLOMA IN RADIOLOGY & IMAGING TECHNOLOGY**

**(From 2014-2015 onwards)**

**PAPER I – FUNDAMENTALS OF RADIATION PHYSICS & PHYSICS OF DIAGNOSTIC RADIOLOGY**

***Q.P. Code : 363601***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. What is basic principle of ultrasound? Describe construction of Phase array & linear array scanner.
2. Detail about the properties of X-ray and production of x ray with a note on tube design.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Describe the interaction of electron with target.
2. Spiral v/s Conventional CT.
3. Focal point of X-ray tube.
4. Grids.
5. X-ray films.
6. HRCT.
7. Intensifying screens.
8. Film badge.
9. Xero radiography.
10. MRI coils.

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