

**VINAYAKA MISSIONS UNIVERSITY, SALEM**

**M.SC.(RADIOLOGY AND IMAGING TECHNOLOGY)**

**DEGREE EXAMINATION – February 2020**

**First Year**

**RADIOLOGICAL PHYSICS**

Time: Three hours

Maximum: 100 marks

Answer **ALL** questions

**I. Write an essay on:**

**(2 x 20 = 40)**

1. Interaction of Ultrasound with matter.
2. GM counter and scintillation detector.

**II. Write short notes on:**

**(10 x 6 = 60)**

3. Any four MRI artifacts.
4. Active and Passive shimming.
5. Ionization chamber.
6. Half wave and Full wave rectifier.
7. Automatic Exposure Control.
8. Rotating anode.
9. Vacuum tube diodes.
10. Photonuclear disintegration.
11. CT streak artifact and Beam hardening artifact.
12. Pair production of x- rays.

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