

QP CODE: 201018

Reg. No.....

**Second Year B.Sc MRT Degree Regular and Supplementary
Examinations August 2019**

Radiation Physics I

Time: 3 Hours

Total Marks:100

- **Answer all questions**

Essays:

(3x10=30)

1. Describe the principle of computed tomography. Explain the different CT generations in detail
2. Describe the structure of X-ray film and explain film processing
3. Explain different radiation quantities and their units.

Short notes:

(8x5=40)

4. Dental radiography
5. Digital radiographic artifacts
6. Characteristic curve of radiographic film
7. Describe automatic film processor
8. Intensifying screen
9. Speed and noise of the screen
10. Scintillation detectors
11. Grids and grid ratio

Answer briefly:

(10x3=30)

12. Photoelectric absorption
13. CT number
14. Equivalent dose and effective dose
15. Developing of a film
16. Ionization chamber
17. Self-rectifier circuit
18. Flat panel detectors
19. Contrast and sharpness of radiographic image
20. Stroboscopic effect
21. Image receptors
