

QP CODE: 201018

Reg. No.....

**Second Year B.Sc MRT Degree Regular/Supplementary Examinations  
April 2025**

**Radiation Physics I**

**Time: 3 Hours**

**Total Marks:100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*

**Essays:** (3x10=30)

1. Explain the principle of digital subtraction angiography and its uses
2. Explain with examples phosphorescence, luminescence and fluorescence
3. Explain the working of a modern X-ray unit with the help of a neat circuit diagram

**Short notes:** (8x5=40)

4. Dental X-ray
5. Xeroradiography
6. Therapy X-ray tubes
7. Third generation CT
8. Cine radiography
9. Fluoroscopy
10. Stereoscopy
11. MV Generators

**Answer briefly:** (10x3=30)

12. Autotransformer.
13. Beam hardening
14. Rayleigh scattering
15. Rotating Anode
16. Collimators
17. Digital radiography
18. Film Gamma
19. Myelography
20. Bremsstrahlung
21. Pair production

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