



**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Medical Imaging Technology Degree Examination – 19-May-2023**

**Time: Three Hours**

**Max. Marks: 100 Marks**

**IMAGING PHYSICS AND DARK ROOM TECHNIQUES (RS-4)**

**Q.P. CODE: 3291**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Second Question Choice)**

**2 x 10 = 20 Marks**

1. Explain the steps of manual processing and make a brief note on constituents of developer and fixer
2. Draw the characteristic curve, write in detail about the regions of characteristic curve  
**OR**  
Write in detail about planning and construction of darkroom

**SHORT ESSAYS (Question No 5 & 10 choice)**

**10 x 5 = 50 Marks**

3. Secondary radiation grids
4. Latent image formation
5. Film propagation automatic processor  
**OR**  
Exposure factors
6. Crossover effects
7. Construction of the x-ray cassette
8. Explain duplitized and single emulsion films
9. Factors affects development of the film
10. Developer solution replenishment  
**OR**  
Explain briefly CRT films
11. Types of fog
12. Film entry detection in automatic processor

**SHORT ANSWER**

**10 x 3 = 30 Marks**

13. Methods of silver recovery
14. Dry bench and wet bench
15. Luminescence
16. Standby mode of automatic processor
17. Safe light filter
18. Single emulsion film
19. Importance of Ph in fixer
20. Fixing agent and function
21. Darkroom entrance types
22. Acidity and alkalinity

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