

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Medical Imaging Technology Degree Examination – 26-Dec-2022**

**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 theory of "Invisible image" formation with diagram
2. Explain the D Log E curve in details  
**OR**  
Elaborate the methods of silver recovery

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

**10 x 5 = 50 Marks**

3. Describe the methods of drying and washing in a automatic processor
4. Factors affecting "Subject contrast"
5. Write a note on construction and care of cassettes  
**OR**  
Working of angiographic cassette
6. Components of developer and fixer
7. Cross over effect
8. Modulation transfer function
9. Brief the factors affecting image "Distortion"
10. Note on darkroom illumination  
**OR**  
Note on construction and working of "Polaroid film"
11. Short note on unsharpness
12. "Static" artifact in radiography

**SHORT ANSWER**

**10 x 3 = 30 Marks**

13. Care and maintenance of intensifying screens
14. Types of film hangers
15. Short note on magnification radiography
16. Fog and scatter
17. Luminescence
18. Define – Opacity, optical density and log relative exposure
19. Darkroom entrances
20. Film screen combinations
21. Explain phosphors used intensifying screens
22. Draw a neat diagram of single and double emulsion film

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