

Rajiv Gandhi University of Health Sciences, Karnataka
II Year B.Sc. Medical Imaging Technology Degree Examination – 26-Nov-2024

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. Discuss in detail about automatic film processing
 2. Explain intensification factor and the construction of intensifying screens with a neat diagram
- OR**
- Explain construction of single emulsion film with a cross sectional diagram. Add a note on dental radiographic films

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. Phenidone – Hydroquinone (PQ) developers
 4. Explain "Halation" and its methods of prevention
 5. Care and protection of x-ray films
- OR**
- Care and maintenance of screens
6. Radiographic noise
 7. Duplitzed films – merits and demerits
 8. Explain the straight line portion of the characteristic curve in details
 9. Factors affecting washing efficiency in manual processing
 10. Explain exposure related film artifacts
- OR**
- Explain processor related film artifacts
11. Silver recovery methods from the scrap x-ray films
 12. Write a note on "Spectral sensitivity"

SHORT ANSWER

10 x 3 = 30 Marks

13. Curved cassette
14. Labyrinth
15. Safelight filters
16. Explain film latitude and exposure latitude
17. Reciprocity law
18. Draw a neat diagram of silver halide crystal and its mention the properties
19. "Hardeners" in developer replenisher
20. Short note absorption and quantum detection efficiency of screen
21. Define x-ray cassette, explain loading and unloading of cassettes
22. Maximum density
