Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – SEP 2017

Time: Three Hours **Max. Marks: 80 Marks**

RADIATION PHYSICS & MEDICAL PHYSICS

Q.P. CODE: 2204

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

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Why rotating anode x-ray tube is preferred compared to the fixed anode x-ray tube. Describe construction and working of rotating anode X-ray tube with a neat diagram.
2. Explain how x-ray and gamma rays gets attenuated when they pass through the medium.
3. How scattered radiation is produced and how it can be minimized reaching the film. What are the different characteristics which influence the performance of a grid? Briefly write about different types of grids.

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Radiographic rating charts
5. Auto timers
6. Beam limiting devices
7. Fluoroscopic table
8. Step wedge and its use
9. Line focus principle
10. Image intensifier
11. Portable x-ray machine
12. KVp control in the x-ray machine
13. Exponential decay
14. Auto transformer
15. Maximum permissible dose limits

SHORT ANSWERS **5 x 2 = 10 Marks**

16. Fuses
17. ALARA principle
18. Magnetic relays
19. Intensifying screens
20. Heel effect

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