PAPER CODE: AHS20010

KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
TELANGANA STATE, WARANGAL – 506 002
B.Sc. (Allied Health Sciences), SECOND YEAR DEGREE SUPPLEMENTARY EXAMINATIONS: OCTOBER, 2025

RADIOLOGY AND IMAGING TECHNOLOGY

PAPER-I

PHYSICS OF DIAGNOSTIC RADIOLOGY

Time: 3 Hours **Max Marks: 80**

Note: Draw diagrams whenever necessary with Black Ball point pen /HB pencil /any dark Color pencil.

Write essay on any TWO of the following questions: **2 X 10 = 20**

1. Explain in detail about interaction of Neutron with matter.
2. Explain in detail about Effective and Equivalent dose.
3. Explain in detail about TLD with a neat labelled diagram.

Write a short note on any FIVE of the following: **5 X 6 = 30**

4. Explain any two area monitoring devices.
5. Geiger muller counter.
6. HVT.
7. Interaction of X-rays with matter.
8. Explain any two personal monitoring devices.
9. Explain about Free air ion chamber.

Write briefly on the following: **10 X 3 = 30**

10. Pair production.
11. Thomson scattering.
12. Mass Attenuation coefficient.
13. Direct patient dosimeter advantages.
14. Principles of Radiation detector.
15. Characteristic radiation.
16. KERMA.
17. Auger electrons.
18. Advantages and disadvantages of Scintillation detector.
19. Fluorescence and phosphorescence.

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