

PAPER CODE: 1070

KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES

WARANGAL, TELANGANA STATE – 506 002

M.D/ M.S DEGREE EXAMINATIONS: OCTOBER 2025

RADIATION ONCOLOGY (RT)

PAPER – I

Time: 3 Hours.

Max Marks: 100

Note: Answer all questions.

Give Diagrammatic representation wherever necessary.

Write an essay on the following:

10 X 10 = 100

1. Describe various Phases of Clinical Trials.
2. Discuss various types of Cancer Registries with special reference to the cancer registry program followed in your institute.
3. Discuss in brief about various Beam Modification devices used in the practice of Radiotherapy.
4. Discuss in brief the physical properties and clinical utilities of commonly used unsealed Radiopharmaceutical Agents.
5. What is meant by the terms Hyperthermia, thermo tolerance, Arrhenius relationship and thermal Enhancement ratio?
6. Give the indications, components and complications of Total parental Nutrition in an Oncology Setting.
7. Discuss various criteria and tools available for assessing the clinical response after Oncological Therapy.
8. Depict the cell cycle in a diagram and enumerate the mechanisms of biological effects of ionizing radiation at the cellular Level with reference to cell cycle.
9. Discuss in brief ALARA principle. What is its clinical implication in radiation protection?
10. Discuss the interactions of photons with matter and the factors on which they depend.
