

MNJ INSTITUTE OF ONCOLOGY AND REGIONAL CANCER CENTRE

DEPARTMENT OF RADIATION ONCOLOGY

INTERNAL EXAMINATIONS

2024 batch

TIME: 3 Hours

MAX MARKS: 100

Note: Answer All Questions

Give diagrammatic representation whenever necessary.

(03-06-2026)

Write a short essay on the following:

10 X10 = 100

- 1) Describe in detail about radiation induced cataract, the latent period and the dose response relationship for cataract in humans?
- 2) Write the role of PET CT scan in radiation planning?
- 3) ALARA?
- 4) What is functional imaging? Write in detail about **SPECT & MRS?**
(2+4+4)
- 5) Describe in detail about breast & cervical cancer screening? (5+5)
- 6) Describe the possible scenarios of radiation terrorism and write in brief about dirty bomb?
- 7) What are the different radioisotopes used in PET-CT scan and its indications?
- 8) Write in detail the treatment of spinal metastasis by surgery, radiation and chemotherapy?
- 9) Define Chemo-brain? Discuss its pathophysiology, clinical features, assessment and its management?
- 10) Describe various radiation units? Write about stochastic and non-stochastic effects? Effects of radiation on Pregnant, Embryo & Foetus?