

Rajiv Gandhi University of Health Sciences
Second Year M.Sc [Radiation Physics] Degree Examination – OCT-2019

[Time: 3 Hours]

[Max. Marks: 100]

RADIOLOGICAL SAFETY AND PROTECTION

Q.P. CODE: 9806

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAY**2 X 20 = 40 Marks**

1. Explain the detail principles of radiation safety and protection. Enumerate them with suitable examples.
2. Write in detail about procedure, handling, storage and disposal of radioactive material in radiotherapy department.

SHORT ESSAY**6 X 10 = 60 Marks**

3. Discuss the radiation emergencies in teletherapy and brachytherapy treatments.
4. Write a note on a) ALI and DAC
b) W_R and W_T
5. a) Safety aspects during installing a diagnostic radiology department
b) ALARA
6. Personal monitoring devices and over exposure limits and reason for PMD for radiation worker
7. Write primary wall shielding calculation of 15MV LINAC of 3DCRT facility and give reason for hydrogenous material preferred as choice for neutron shielding with example.
8. Derive HVT and TVT and its relationship.

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