

Seat No.: _____

Enrolment No. _____

PARUL UNIVERSITY
DEPARTMENT OF PARAMEDICAL AND HEALTH SCIENCES
B.Sc. Med. Sci. April 2023 Examination

Year: 2

Date: 03-04-2023

Subject Code: 19111201

Time: 10:00 am to 10:45 am

**Subject Name: RD MOD-1 Radiation Physics
and Radiation Protection**

Total Marks: 30

Instructions:

1. Attempt all questions from each section
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.

Q.1: Definition (any 5 out of 6) (Each 1 Mark) 05

- (i) Type of radiation
- (ii) Define Electron volt
- (iii) Annual Dose limit of Radiation worker and Public
- (iv) Principles of radiation protection
- (v) Type of radiation Hazard
- (vi) Commonly used personnel monitoring device

Q.2: Short question (any 5 out of 6) (Each 2 Mark) 10

- (i) Define Tissue air ratio
- (ii) Define PDD
- (iii) Define LET
- (iv) Types interaction of radiation with matter
- (v) Define ALI
- (vi) Draw X ray Spectrum

Q.3: Long question (any 3 out of 4) (Each 5 Mark) 15

- (i) Define Photoelectric Effect and its features
- (ii) Define Stochastic and non-stochastic effect with examples
- (iii) Define Compton effect
- (iv) Define HVT and TVT and relation between both