[LA0512] **Sub.code:4011**

M.Sc. (MEDICAL PHYSICS) DEGREE EXAMINATION- MAY 2012

FIRST YEAR
RADIATION PHYSICS
Q.P. Code: 284011

Time: Three hours (180Min) **Maximum: 100 Marks**

Answer All questions

I. Elaborate on:	**Pages (Max)**	**Time (Max)**	**Marks (Max)**
1. Describe in detail about interaction of ionizing radiation with matter and importance of these interaction.	17	40	20
2. Discuss the various methods of radioactive decay.	17	40	20
II. Write Notes on:			
1. Properties of alpha, beta and gamma radiation.	4	10	6
2. Ionization and excitation.	4	10	6
3. Bohr's atomic model.	4	10	6
4. Energy transfer and energy co-efficient.	4	10	6
5. Isotopes, Isobars, Isotones and Isomers.	4	10	6
6. Bremmstrahlung and characteristics radiation.	4	10	6
7. Bragg curve.	4	10	6
8. Cerenkov radiation.	4	10	6
9. Radiation quality factor and Tissue weighting factor.	4	10	6
10. Mass defect and Binding energy.	4	10	6

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