

**Madhya Pradesh Medical Science University, Jabalpur**  
**BXRT First Year Examination March-2023**

**Paper Code-23AP0600101641**

**Subject- Radiation Protection & Radiation Prology**

**Maximum Marks : 100**

**Time : 3 Hours**

- 1) All questions are compulsory
- 2) Draw diagrams wherever necessary
- 3) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper, otherwise the question shall not be valued
- 4) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

**Q.1 Very short answer the question (50-60 words)**

**2X10=20**

- a. Film badges.
- b. Annual limit of radiation intake.
- c. Radio sensitizer.
- d. ALARA
- e. Radiation injury to DNA.
- f. LD50.
- g. SI units of radiation.
- h. Non stochastic effects of radiation.
- i. ICRP.
- j. Apoptosis.

**Q.2 Short Answer the question (250-300 words)**

**10X5=50**

- a. Importance of 'ALARA', physical principles of design and planning of radiation installation. <https://www.mpmsuonline.com>
- b. Shielding materials.
- c. Pocket dosimeters.
- d. Personnel monitoring devices.
- e. Primary and Secondary barrier.

**Q.3 Essay type question (450-500 words)**

**15X2=30**

- a. Definition of radiation hazards and Describe radiation protection measures.
- b. Describe various methods of radiation detection.

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