Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (Radiotherapy Technology) (Sem.–3)

RADIATION EMERGENCIES

Subject Code : BSRT-309-19

M.Code : 78488

Time : 3 Hrs. Max. Marks : 50

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.

SECTION-A

Answer briefly :

1) What is the SI unit for absorbed dose?

2) What is the value of Radiation weighting factor wR for alpha particles?

3) Give relationship between Becquerel and Curie.

4) Mention the year in which Cobalt 60 teletherapy was first put to clinical use.

5) Define linear energy transfer.

6) Mention the year in which Fukushima Daiichi nuclear disaster was reported.

7) What is the SI unit of equivalent dose HT?

8) Define effective dose.

9) How many levels of radiation emergency are there as per the International Nuclear Event Scale (INES)?

10) As per NCRP recommendation, what is the maximum permissible concentration of ozone for continuous exposure?

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SECTION-B

11) Discuss shielding design for brachytherapy facilities.

12) What are the limitations of Telecobalt?

13) Explain types of radiation exposure.

14) Differentiate between high energy and low energy LINACs.

15) How occupational exposure can be minimized?

SECTION-C

16) Describe the main components of a LINAC installation.

17) Write a note on types of radiation emergencies.

18) Write an exhaustive note on historical perspective of radiation emergencies.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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